C: Dir., Department of General Services

City of NORFOLK

To the Honorable Council
City of Norfolk, Virginia

June 28, 2016

From: David S. Freeman, AICP
Director of General Services

Subject: Conveyance of property located at 227 West Freemason Street and 334 Duke Street to Virginia Historic Restoration Foundation

Reviewed: _____
Sabrina Joy-Hogg, Deputy City Manager

Ward/Superward: 2/6

Approved: _____
Marcus D. Jones, City Manager

Item Number: **PH-12**

I. **Recommendation:** Adopt Ordinance

II. **Applicant:** Virginia Historic Restoration Foundation

III. **Description:**

This agenda item is an ordinance to permit the sale of the property owned by the City of Norfolk (the "city"), located at 227 West Freemason Street and 334 Duke Street (the "property"), to the Virginia Historic Restoration Foundation (the "Foundation") for the purpose of rehabilitation and restoration of the historic home.

IV. **Analysis**

The Foundation seeks to acquire the property, also known as the Taylor-Whittle House, for the purpose of restoring and rehabilitating the home. As part of the consideration for this transaction, the property will be conveyed expressly subject to restrictive covenants as set forth in Section 2.2 of the proposed purchase and sale agreement between the city and the Foundation. The restrictive covenants are imposed as covenants running with and binding upon the property. The city will have the right, power, and authority to enforce the restrictive covenants in the event of default by the Foundation.

V. **Financial Impact**

Purchase price	The Foundation will cover all costs related to the restoration and rehabilitation of Taylor-Whittle House.
Typical Costs of Closing	Each party to this transaction shall pay its own legal fees.
FY 2016 Assessed Value of Parcel	$800,800 (227 W. Freemason Street) $147,500 (334 Duke Street)
Annual Real Property Tax Revenue	N/A

810 Union Street #1101 ▪ Norfolk, Virginia 23510
Phone: 757-664-4242 ▪ Fax: 757-664-4239

VI. Environmental

There are no known environmental issues associated with this property.

VII. Community Outreach/Notification

Public notification for this agenda item was conducted through the city's agenda notification process.

VIII. Board/Commission Action

N/A

IX. Coordination/Outreach

This letter and ordinance have been coordinated with the Department of General Services – Office of Real Estate and the City Attorney's Office.

Supporting Material from the City Attorney's Office:

- Ordinance
- Purchase and Sale Agreement
- Aerial map

6/2/2016mr

Form and Correctness Approved:

By _____
Office of the City Attorney

Contents Approved:

By _____
Director, Dept. of General Services

NORFOLK, VIRGINIA

ORDINANCE No.

AN ORDINANCE APPROVING THE TERMS AND CONDITIONS OF THE REAL ESTATE PURCHASE AND SALE AGREEMENT AND THE CONVEYANCE TO THE VIRGINIA HISTORIC RESTORATION FOUNDATION OF PROPERTY LOCATED AT 227 WEST FREEMASON STREET AND 334 DUKE STREET IN THE CITY OF NORFOLK.

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WHEREAS, the City desires to sell and the Virginia Historic Restoration Foundation (the "Foundation") desires to purchase certain real property owned by the City and known as the Taylor-Whittle House, located at 227 West Freemason Street in the City of Norfolk, and the adjacent parcel located at 334 Duke Street in the City of Norfolk, as more particularly described in Exhibit A to the Real Estate Purchase and Sale Agreement (the "Agreement") attached hereto and made a part hereof (together, the "Property"); and

WHEREAS, negotiations by the Parties have produced this Agreement for the Foundation to purchase the Property and to rehabilitate and to restore the Property as described in detail in Foundation's Proposal, attached as Exhibit B to the Agreement; now, therefore,

BE IT ORDAINED by the Council of the City of Norfolk:

Section 1:- That the conveyance by the City of Norfolk to the Virginia Historic Restoration Foundation of certain property located at 227 West Freemason Street and 334 Duke Street in the City of Norfolk is hereby approved and the Real Estate Purchase and Sale Agreement, a copy of which is attached as Exhibit "A", is hereby approved.

Section 2:- The City Manager is authorized to correct, amend, or revise the Real Estate Purchase and Sale Agreement as he may deem necessary in order to carry out the intent of the Council and to execute the Real Estate Purchase and Sale Agreement, as corrected, amended, or revised in accordance herewith, for and on behalf of the City, subject however to approval as to form and correctness by the Office of the City Attorney.

Section 3:- That this ordinance shall be in effect from and after thirty (30) days from the date of its adoption.

EXHIBIT A

REAL ESTATE PURCHASE AND SALE AGREEMENT

BETWEEN

THE CITY OF NORFOLK, VIRGINIA

AND

VIRGINIA HISTORIC RESTORATION FOUNDATION

REAL ESTATE PURCHASE AND SALE AGREEMENT

THIS REAL ESTATE PURCHASE AND SALE AGREEMENT ("Agreement"), is made as of the 28th day of July, 2016, by and between the CITY OF NORFOLK, VIRGINIA ("City" or the "Seller"), a municipal corporation of the Commonwealth of Virginia, and VIRGINIA HISTORIC RESTORATION FOUNDATION, a nonstock Virginia corporation (the "Foundation" or the "Buyer"). The parties to this Agreement may be collectively referred to by the term "Parties" or individually as "Party".

RECITALS:

A. The City desires to sell and Foundation desires to purchase certain real property owned by the City and known as the Taylor-Whittle House, located at 227 West Freemason Street in the City of Norfolk (the "Taylor-Whittle House"), and an adjacent parcel located at 334 Duke Street in the City of Norfolk (the "Duke Street Property"), both more particularly described in Exhibit A attached hereto and made a part hereof (collectively the Taylor-Whittle House and the Duke Street Property being referred to herein as the "Property") (collectively the "Conveyance");

B. Negotiations by the Parties have produced this Agreement for the Foundation to purchase the Property and to rehabilitate and to restore the Property as described in detail in Foundation's Proposal, which is hereto incorporated by reference and attached as Exhibit B.

NOW, THEREFORE, in consideration of the foregoing, the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

ARTICLE I

DEFINITIONS OF TERMS

When used in this Agreement with an initial capital letter or letters, each of the following terms shall have the meaning given it below.

(a) "City" means the City of Norfolk.

(b) "Closing Date" means the date established pursuant to Section 3.1 of this Agreement.

(c) "Agreement" means this Real Estate Purchase and Sale Agreement between the City and the Foundation.

(d) "Foundation's Proposal" means Foundation's narrative describing Foundation's plan to rehabilitate and to restore the Property and attached hereto and made a part hereof as Exhibit B.

(e) "Due Diligence Period" means the ninety (90) day period, commencing from the date of full execution of this Agreement by all parties after the City has obtained the "City Approval" (defined below). The Due Diligence Period shall be utilized by the Foundation to investigate the Property and to obtain the necessary information, assessments, studies, and the like (more particularly described in Section 4.1, below) which Foundation requires in its sole discretion before acquiring the Property (collectively the "Due Diligence"). If Foundation discovers information, in its Due Diligence, within the initial ninety (90) day Due Diligence Period, which Foundation determines requires further investigation, Foundation shall give City written notice thereof and the Due Diligence Period shall automatically be extended by an additional ninety (90) days. This Agreement may be terminated by the Foundation prior to the

end of the Due Diligence Period, as it may be extended. Foundation shall have the right of access to the Property to conduct its Due Diligence per Section 4.1, below.

(f) "City Approval" means the procedure whereby the City has executed this Agreement and has satisfied all legal and procedural requirements under all federal, state and municipal laws and ordinances necessary for the City to enter into this Agreement and to consummate the transaction contemplated herein by this Agreement (the "Conveyance") including: any and all required notices, advertisements and/or hearings; the adoption of an Ordinance by Norfolk City Council approving the Conveyance and authorizing the City Manager of the City of Norfolk, Virginia, to execute the "Deed" (defined below) and all documents related to the Conveyance but excluding any action of City's administrative departments and bodies and any action with respect to the acceptance by City or conveyance by City to Buyer of any property rights not currently contemplated by this Agreement. The cost and responsibility of satisfying all components of the City Approval shall be borne solely by the City.

(g) "Intended Use" means the intended use of the Taylor-Whittle House by the Foundation as a property listed on the National Register of Historic Places and the Virginia Landmark Register, in conjunction with the Duke Street Property, consistent with the purposes set forth in this Agreement.

(h) "Outside Closing Date" means the latest date on which "Closing" (defined below in Section 3.1) may occur as set forth in Section 3.1 of this Agreement.

(i) "Project" means the rehabilitation and restoration after Closing of the historic home known as Taylor-Whittle House located at the Property as more fully described in the Foundation's Proposal (the "Restoration").

(j) "Substantially Complete" or "Substantial Completion" means, with respect to the Project, the date when the Restoration is sufficiently completed so as to permit the Intended Use of the Property.

(k) "Unavoidable Delay" means a delay due to war, riots, civil commotion, strikes, labor disputes, embargoes, natural disaster, Acts of God or any other cause or contingency similarly beyond the control of the Parties or of the Foundation's contractors.

ARTICLE II

AGREEMENT TO CONVEY; AGREEMENT TO RESTORE THE PROPERTY

Section 2.1. Conveyance of Property "As Is".

City will convey fee simple title to the Property to Foundation by special warranty deed (the "Deed") which title shall be good and marketable and free of any liens, encumbrances, or other title defects which would prohibit or impair the use of the Property for the Intended Use, except for any "Permitted Encumbrances", as hereinafter defined. The City shall have reasonable time to cure any title defects which are not acceptable to Foundation in its sole discretion. The City, however, shall have the option of declining to cure any defect, and if the City does decline to cure any defect or does not cure any defect that it has agreed to cure, the Foundation shall have the right either to waive its title objections and to take title to the Property subject to such title defects, which shall be considered "Permitted Encumbrances" as defined in Section 3.6(a) of this Agreement, or to terminate this Agreement as its exclusive remedy for termination of this Agreement and any related claim. Foundation will accept from City the Property, subject to the terms and conditions hereinafter set forth. The City is conveying and Foundation is accepting the use and conveyance of the Property "as is."

Section 2.2. Restrictive Covenants.

The restrictive covenants contained in this Section 2.2 (the "Restrictive Covenants") are intended and designed to operate as covenants binding upon Foundation and its successors and assigns. The Restrictive Covenants are intended for the benefit of the Property, provided, however, with respect to the covenants set forth in Sections 2.2(a) and 2.2(b) below, only the City and any successor or assignee of the City that is a local governmental agency shall have the right, power and authority to enforce the Restrictive Covenants. The City shall have the right, power and authority (without the necessity of obtaining the consent of Foundation) to waive compliance with any of the Restrictive Covenants whenever it makes a determination, in its reasonable discretion, that such non-compliance or default does not materially interfere with the objectives or obligations of the City. In addition to, but not in lieu of, any other right or remedy for breach of any one or more of the Restrictive Covenants, the City shall be entitled to seek injunctive relief, without necessarily showing monetary or special damages and without posting bond or security for a bond for the award of a permanent injunction. The violation of any of the Restrictive Covenants, and the exercise of any right or remedy for breach of any of such covenants, shall not cause a reversion or forfeiture of title. The Parties recognize that the rehabilitation and operation of the Property in a manner that is in the best interests of both Parties may from time to time require the confirmation, clarification, amplification or elaboration of the Restrictive Covenants in order to deal adequately with circumstances that may not now be foreseen or anticipated by the Parties.

As part of the consideration for this transaction, the Property shall be conveyed expressly subject to the following Restrictive Covenants that are to be imposed as covenants running with and binding upon the Property:

(a) Once the Restoration is Substantially Complete, any land area within the Property not occupied by structures, hard surfacing, or vehicular driveways shall be kept planted with grass, trees, and plants or shrubbery and maintained in a healthy condition and neat appearance. In the event of a default by Foundation, or its successors and assigns, in the planting or maintenance obligations set forth in this Section 2.2(a), which default continues for a period of thirty (30) business days after receipt by Foundation of written notice thereof, the required planting and maintenance work may be completed by the City at the sole cost and expense of Foundation, its successors and assigns, and Foundation shall reimburse City for the costs thereof within thirty (30) days after receipt of an invoice therefor.

(b) Once the Restoration is Substantially Complete, the Taylor-Whittle House and its appurtenant premises will be maintained by Foundation in a sound condition and with a neat and well maintained appearance so as to meet the criteria, as they exist from time to time, for a property classified on the National Register of Historic Places, located in the Freemason area of the City of Norfolk, and the Virginia Department of Historic Resources (collectively the "Criteria"). Once the Restoration is Substantially Complete, necessary repairs, maintenance and upkeep of the Project, as required by the Criteria, will be performed by the Foundation so as to preserve the historic appearance, physical integrity, and the sanitary and safe condition of the Taylor-Whittle House and other improvements (collectively "Maintenance Obligations"). The Foundation shall be in default if it fails to satisfy its Maintenance Obligations set forth in this Section 2.2(b), which default continues for a period of thirty (30) days after receipt by the Foundation of written notice thereof and, if such default cannot reasonably be cured within such thirty (30)-day period, the Foundation fails to commence to cure such default within such thirty (30)-day period and to diligently continue to pursue such effort to cure to completion ("Maintenance Default"). Upon an occurrence of a Maintenance Default, the outstanding

Maintenance Obligations may be completed by the City at the sole cost and expense of Foundation, and Foundation shall reimburse City for the reasonable costs thereof within thirty (30) days after receipt of an invoice therefor.

(c) The Property is subject to the terms and conditions of that certain Deed dated September 22, 1974 and recorded in the Clerk's Office of the Circuit Court of the City of Norfolk, Virginia (the "Clerk's Office") in Deed Book 1360 at page 593, wherein the Norfolk Historic Foundation transferred the Taylor-Whittle House to the City subject to all conditions, covenants, restrictions, easement and reservations of record, including, but not limited to, the reverter and other terms and conditions contained in the last will and testament of Edmonia Lee Whittle dated March 20, 1967, and recorded in the Clerk's Office in Will Book 46, at page 131 (the "Whittle Will"). The terms and conditions of the Whittle Will provide that the Property is to be restored and preserved and that it be made reasonably available to the people of Norfolk as a historic landmark. Further, the Whittle Will provides that if any group to which the Property is conveyed expresses an unwillingness to continue to maintain the Property as a historic landmark, by resolution of its governing body, duly acknowledged and capable of being admitted to record, the Property shall revert to the heirs of Edmonia Lee Whittle. Purchaser shall provide public access to the Property as may be required by the Criteria and as required to satisfy the terms and conditions of the Whittle Will.

(d) The Restrictive Covenants shall be binding upon the City and Foundation and its successors and assigns, except that the Restrictive Covenants set forth in Sections 2.2(a) and 2.2(b) shall expire forty (40) years after the date of this Agreement.

It is intended and agreed hereby that the Restrictive Covenants shall be covenants running with the land and that they shall in any event, and without regard to technical

classification or designation, legal or otherwise, be binding upon the City and Foundation, respectively, as the case may be.

(e) Notwithstanding anything herein to the contrary, the Restrictive Covenants set forth in Sections 2.2(a) and 2.2(b) shall expire should either of the following occur: (i) the Property suffers a "Post-Closing Casualty" (defined below), after which the Foundation, or its successors or assigns, decides, in its sole discretion, not to restore the Property; or (ii) after Closing, all or any portion of the Property is taken under the power of eminent domain or is transferred in lieu of such a taking and such taking or transfer materially interferes, in the opinion of the Foundation, with Foundation's Restoration and/or Intended Use. Should either such event occur, the Foundation shall provide written notice to the City of its intention not to restore the Property and the City agrees to execute an instrument, in recordable form, confirming that the Restrictive Covenants in Section 2.2(a) and Section 2.2(b) are terminated.

Section 2.3. Title Insurance; Due Diligence.

Prior to the expiration of the Due Diligence Period, Foundation, at its expense, shall obtain a commitment for title insurance (the "Title Commitment") from a nationally recognized title company chosen by the Foundation and a survey of the Property (the "Survey"). The Foundation shall furnish copies of the Title Commitment and the Survey to the City, upon request.

City shall provide to the Foundation, within seven (7) days of the date of execution of this Agreement by all parties hereto, copies of all engineering studies and inspection reports regarding the Property which are in the possession of the City.

Foundation shall have the right of entry set forth in Section 4.1 (Right of Entry). In the event Foundation determines, in its sole discretion, that any aspect of the Property is

unsuitable for the Project or for the Intended Use, Foundation may terminate this Agreement by written notice thereof to the City prior to expiration of the Due Diligence Period, as it may be extended, and Foundation's sole remedy shall be such termination and neither party shall have any further obligations under this Agreement except as otherwise expressly provided in this Agreement.

Section 2.4. Risk of Loss and Insurance.

After Closing, the Foundation shall bear the risk of loss on the Property and all improvements thereon. Foundation shall, in its discretion, procure and maintain policies of fire insurance, with standard extended coverage endorsements; flood insurance and comprehensive liability insurance, on the Property with such terms and coverage amounts as the Foundation may deem appropriate (collectively the "Foundation Insurance"). Foundation agrees that, in the event the Property is partially or fully damaged or destroyed through accident (i. e. fire, flood, storm or other cause) ("Post-Closing Casualty"), Foundation may, in its sole discretion, and subject to the limits of the proceeds received by the Foundation from the Foundation Insurance, rebuild the improvements on the Property. Notwithstanding anything herein to the contrary, in the event of a Post-Closing Casualty, Foundation shall not be required to rebuild the improvements on the Property and attempt to replicate the historic design, construction and condition of the Property that existed prior to the Post-Closing Casualty.

Prior to Closing, City shall bear the risk of loss of the Property and any existing improvements. Loss of all or part of improvements on the Property prior to Closing in no way requires City to rebuild the existing improvements and in the event of a substantial loss that prohibits the Property from being rehabilitated, the City shall have the right, upon written notice to the Foundation, to terminate this Contract ("Pre-Closing Casualty Loss").

ARTICLE III

CLOSING AND PURCHASE PRICE

Section 3.1. Time and Place of Closing.

The closing ("Closing") shall take place at Office of the City Attorney, City Hall, 810 Union Street, Suite 900, Norfolk, Virginia 23510, or at any other location in Norfolk agreed to by the Parties, on a date which shall be the earlier of either (a) a date mutually satisfactory to Foundation and the City, or (b) thirty (30) days after all the conditions set forth in Section 3.3 and Section 3.4, below, have been satisfied (the "Closing Date") but in any event no later than January 31, 2017 ("Outside Closing Date").

Section 3.2. Consideration.

In consideration for the City's conveyance of the Property to Foundation, the Foundation agrees to restore and maintain the Property consistent with the Criteria.

Section 3.3. Conditions of Foundation's Obligation to Close.

The obligation of Foundation to close hereunder is expressly conditioned upon the fulfillment by and as of the Closing Date of each of the conditions listed below, provided, however, that Foundation at its election, evidenced by notice delivered to the City prior to or at the Closing, may waive any or all of the following conditions:

(a) All representations, warranties, acknowledgments and covenants made by the City in this Agreement shall be true and correct in all material respects and shall continue to be true and correct in all material respects at the date of Closing.

(b) No laws, statutes, ordinances, governmental orders, regulations, rules or requirements shall have been enacted, adopted, issued or otherwise promulgated, and/or shall be in force, that would prevent the Restoration and Intended Use of the Property in accordance with

this Agreement, the zoning, or in accordance with any related agreements to which the City is a party, or to which Foundation is a party.

(c) There shall be no material adverse change to the physical or environmental condition of the Property since the date of this Agreement.

(d) The City shall own good and marketable fee simple title to the Property free and clear of all liens and encumbrances except those permitted by this Agreement.

(e) The Foundation is satisfied with the results of its Due Diligence.

(f) City has obtained the City Approval.

Section 3.4. Conditions of City's Obligation to Close.

The obligation of the City to close hereunder is expressly conditioned upon the fulfillment by and as of the Closing Date of each of the conditions listed below, provided, however, that the City at its election, evidenced by notice delivered to Foundation prior to or at the Closing, may waive any or all of the following conditions:

(a) All representations, warranties, acknowledgments and covenants made by Foundation in this Agreement shall be true and correct in all material respects, and shall continue to be true and correct in all material respects at the date of Closing.

(b) No laws, statutes, ordinances, governmental orders, regulations, rules or requirements shall have been enacted, adopted, issued or otherwise promulgated, and/or shall be in force, that would prevent the rehabilitation and use of the Property in accordance with this Agreement, the zoning, or in accordance with any related agreements to which the City or Foundation is or are a party.

(c) City has obtained City Approval;

Section 3.5. Failure to Satisfy Conditions.

In the event that any of the conditions of a Party's obligation to close hereunder as set forth in Section 3.3 or 3.4 hereof are unsatisfied for any reason, that Party shall be entitled, but not obligated, upon notice delivered to the other Party to this Agreement on or prior to the Closing Date, to receive one adjournment of thirty (30) days of the Closing to a date no later than the Outside Closing Date, to enable that Party to satisfy or cause to be satisfied such conditions. If on the original or any adjourned Closing Date, any condition(s) of the obligation of a Party to close hereunder shall remain unsatisfied and has not been waived by such Party, then such Party shall have the right to terminate this Agreement upon thirty (30) days written notice to the other, and unless, during such thirty (30) day notice period, the Party entitled to terminate shall waive such condition(s) as provided above and agree to proceed to Closing hereunder, this Agreement shall immediately terminate and subject to the last sentence of Section 2.4., neither Party shall have any further rights hereunder or obligations to the other of any nature hereunder or by reason hereof. Notwithstanding the foregoing, with respect to a failure to satisfy any condition of the Closing that results from a Party's default under this Agreement, the provisions of this Agreement pertaining to such default, and to the Parties' respective rights, remedies and obligations in connection with such default, shall be applicable in addition to, or (in the non-defaulting Party's discretion) as an alternative to, the non-defaulting Party's aforesaid right of termination.

Section 3.6. Deliveries at Closing by City.

At the Closing, City will execute and deliver to Foundation the following:

(a) The properly executed and acknowledged special warranty Deed conveying good and marketable fee simple title to the Property free and clear of all liens and encumbrances except "Permitted Encumbrances," as defined herein, to Foundation subject to the

Restrictive Covenants described herein; "Permitted Encumbrances" shall mean all matters of record (except liens) that have not expired by time limitations contained therein or otherwise become ineffective or that were accepted by Foundation pursuant to the provisions of Section 2.1 of this Agreement.

(b) A certificate to the effect that the City is not a foreign entity subject to the withholding requirements of the Foreign Investment in Real Property Tax Act;

(c) A certified copy of the Ordinance adopted by the City authorizing the Conveyance;

(d) Any other document or instrument required hereunder or reasonably requested by Foundation or its title insurance company in order to consummate the transactions contemplated herein.

Section 3.7. Deliveries at the Closing by Foundation.

At the Closing, Foundation shall execute and/or deliver the following:

(a) Foundation shall deliver to the City the written opinion of counsel of Foundation, in form reasonably satisfactory to the City (assuming that all signatures are genuine, and further assuming that all documents presented to such counsel as copies conform with the originals), stating (1) that Foundation is a corporation, duly organized and validly existing entity under the laws of the Commonwealth of Virginia; (2) that Foundation has the power to enter into the transactions contemplated by this Agreement (including, without limitation, entry into this Agreement); (3) that all actions by Foundation required to be authorized in the transaction contemplated by this Agreement have been duly authorized; (4) that this Agreement and all documents required to effectuate the transactions contemplated hereby which are to be executed by Foundation (including, without limitation, all agreements and instruments to be executed by Foundation at the Closing) have been duly executed and delivered by Foundation, and constitute

binding obligations of Foundation, enforceable in accordance with their terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganizations, moratoriums or similar laws affecting the enforcement of creditors' rights generally and by legal and equitable limitation on the enforceability of specific remedies;

(b) Any other document or instrument required hereunder or reasonably requested by the City in order to consummate the transactions contemplated herein, which document or instrument will be in form and substance reasonably acceptable to Foundation, including, but not limited to, proof of Foundation's Insurance required by Section 2.4, which document or instrument will be in form and substance reasonably acceptable to City.

Section 3.8. Prorations. Proratable items relating to the Property will be prorated as of the date of Closing.

Section 3.9. Closing Costs. City is exempt from grantor's tax on the Deed. Foundation will pay all other recording taxes and fees in connection with the recordation of the Deed, the cost of its title insurance commitment and policy, the cost of obtaining the Survey which Foundation may order, and all other costs incurred in connection with its Due Diligence investigations of the Property. Each Party will pay its respective attorney's fees.

ARTICLE IV

ADDITIONAL COVENANTS

Section 4.1. Right of Entry. Commencing upon the date of full execution of this Agreement and continuing until the earlier of the termination of this Agreement or Closing, Foundation and its agents, representatives and contractors will have the right to enter the Property for the purpose of surveying the Property, conducting soil tests, environmental testing, and engineering studies and performing such other examinations as Foundation deems necessary to determine the suitability of the Property for its Intended Use, provided that any testing to be

done to the Taylor-Whittle House shall require the prior approval of the City, which approval shall not be unreasonably withheld, and shall be performed under the guidance of the City's Department of General Services. Foundation will keep the Property free and clear of all mechanics' liens and will indemnify, defend and hold the City harmless from and against any and all claims, liens, liabilities, damages, losses and costs (including reasonable attorneys' fees) arising from the exercise by Foundation of its right of entry under this Section. This indemnity will survive Closing and any termination of this Agreement. If the Closing does not occur, Foundation will repair any damage to the Property caused by Foundation's exercise of such right of entry.

Section 4.2. Condemnation. If before the Closing all or any portion of the Property is taken under the power of eminent domain or is transferred in lieu of such taking and such taking or transfer materially interferes, in the opinion of Foundation, with Foundation's contemplated restoration and the Intended Use of the Property, then either party may, at its option, (i) terminate this Agreement by notice to the other party within thirty (30) days after the terminating party is notified of such taking or transfer or (ii) proceed to Closing.

Section 4.3. Time is of the Essence. Time is of the essence as to the performance of the terms and conditions of this Agreement. To the extent any provisions of this Agreement specifically state that time is of the essence, such specific provisions are not intended to mean that time is not of the essence as to the remaining provisions of this Agreement.

Section 4.4. Foundation's Financing of the Restoration. Foundation anticipates that the financing for the Restoration shall come from public and private donations and grants. However, Foundation is unable to solicit or to apply for such financing until Foundation takes title to the Property. In the event Foundation is unable to secure such financing, Foundation intends to sell, transfer and convey the Property to a grantee which intends to place the Property

under a Historic Preservation Easement accepted by the Virginia Board of Historic Resources and the Virginia Department of Historic Resources (an "Easement Grantee"). If Foundation is unsuccessful in securing its financing or in finding an Easement Grantee within three (3) years after the date of Closing, title to the Property shall revert to the City at no cost to the City and the City and the Foundation shall execute any deed and related documents necessary to accomplish this reversion.

ARTICLE V

EVENTS OF DEFAULT AND REMEDIES

Section 5.1. Default by Foundation.

The occurrence of any of the following shall be an event of default by Foundation under this Agreement:

(a) The filing by Foundation of a voluntary proceeding under present or future bankruptcy, insolvency, or other laws respecting debtors' rights;

(b) The consent by Foundation to an involuntary proceeding under present or future bankruptcy, insolvency, or other laws respecting debtor's rights;

(c) The entering of an order for relief against Foundation or the appointment of receiver, trustee, or custodian for all or a substantial part of the property or assets of Foundation in any involuntary proceeding, and the continuation of such order, judgment or decree unstayed for any period of thirty (30) consecutive days;

The failure of Foundation to perform or to observe any covenant, obligation, condition or requirement of this Agreement not specifically named as a default in this Section 5.1, and the continuation of such failure for thirty (30) days after written notice from City specifying the nature and extent of any such default, or, if such default cannot reasonably be cured within such thirty (30)-day period, the failure either (i) to commence to cure such default

within such thirty (30)-day period and to diligently continue to pursue such effort to cure to completion, or (ii) to cure such default within a reasonable time after the expiration of the first thirty (30)-day period, in no event to exceed ninety (90) days after the written notice of default.

Section 5.2. Default by the City.

The occurrence of any of the following shall be an Event of Default by the City under this Agreement: The failure of the City to perform or observe any covenant, obligation or condition or requirement of this Agreement not specifically named to be a default in this Section 5.2. and the continuation of such failure for thirty (30) days after written notice from City specifying the nature and extent of any such default, or, if such default cannot reasonably be cured within such thirty (30)-day period, the failure either (i) to commence to cure such default within such thirty (30)-day period and to diligently continue to pursue such effort to cure to completion, or (ii) to cure such default within a reasonable time after the expiration of the first thirty (30)-day period, in no event to exceed ninety (90) days after the written notice of default.

Section 5.3 Remedies.

Upon the occurrence and continuance of any Event of Default described in Section 5.1 or Section 5.2 after written notice and expiration of any applicable cure period without cure, the non-defaulting Party may elect to terminate this Agreement by giving written notice of such termination to the defaulting Party, and this Agreement shall terminate as of the date specified in such notice (which date shall be on or after the date of the notice of termination).

ARTICLE VI

ASSIGNMENT LIMITATIONS

Except as otherwise specifically provided herein, Foundation may not assign this Agreement or any right, title or interest hereunder without the City's prior written permission. An assignment shall not relieve the assigning party from its obligations under this Agreement. Any purported assignment of this Agreement or of any right, title or interest hereunder not complying with this Article VI shall be void and of no force or effect.

ARTICLE VII

MISCELLANEOUS

Section 7.1. No Broker. Foundation and City each represent and warrant that no broker, to whom a commission, fee or other compensation is payable, is or has been involved in or brought about the transactions contemplated by this Agreement. Each of said Parties shall indemnify and hold the others harmless from any and all claims, obligations, liabilities, costs or expense (including reasonable attorneys' fees) incurred as a result of any claim for brokerage commissions, fees or other compensation by any person or entity who alleges having acted or dealt with the indemnifying Party in connection with the Property or the transactions contemplated by this Agreement. The Parties' obligations under this Section shall survive the Closing and any termination of this Agreement.

Section 7.2. Relationship of Parties. This Agreement is not to be construed to create a partnership or joint venture between the Parties.

Section 7.3. Negotiated Document. The Parties acknowledge that the provisions and language of this Agreement have been negotiated, and agree that no provision of this Agreement

shall be construed against any Party by reason of such Party having drafted such provision of this Agreement.

Section 7.4. Governing Law. This Agreement shall be governed and construed by the laws of the Commonwealth of Virginia. In the event of any action arising between the Parties with respect to the Property, venue shall be in the Circuit Court of the City of Norfolk.

Section 7.5. Successors and Assigns. The agreements, terms, covenants and conditions of this Agreement shall be binding upon and inure to the benefit of the City, Foundation, and except as otherwise provided herein, their respective successors and permitted assigns.

Section 7.6. Further Assurances. Each Party hereto shall do all acts and things and make, execute and deliver such written instruments as shall from time to time be reasonably required to carry out the terms and provisions of this Agreement.

Section 7.7. No Amendment. Neither this Agreement nor any provisions hereof may be changed, modified, amended, supplemented, altered, waived, discharged or terminated except by an instrument in writing signed by both Parties and if required by any mortgage document, with the written consent of the applicable lender.

Section 7.8. Survival of Closing. The provisions of this Agreement shall survive the Closing.

Section 7.9. Effectiveness. This Agreement shall not be binding or effective until executed and delivered by the Parties hereto.

Section 7.10. Waiver. The failure of any Party to insist upon strict performance of any of the terms or provisions of this Agreement or to exercise any option, right or remedy contained in this Agreement, shall not be construed as a waiver or as a relinquishment for the future of such term, provision, option, of this Agreement nor be deemed to have been made unless expressed in writing and signed by such Party.

Section 7.11. Exhibits. Each Exhibit referred to in this Agreement is incorporated by reference and attached to this Agreement.

Section 7.12. Consent and Approvals.

(a) All consents and approvals which may be given under this Agreement shall be in writing, as a condition of their effectiveness. The granting of any consent or approval by a Party to perform any act requiring consent or approval under the terms of this Agreement or the failure on the part of a Party to object to any such action taken without the required consent or approval shall not be deemed a waiver by the Party whose consent was required or its right to require such consent or approval for any further similar act.

(b) If it is provided that a particular consent or approval is not to be unreasonably withheld, such consent or approval also shall not be unreasonably conditioned or delayed and any matter required to be done satisfactorily or to the satisfaction of a Party only be done reasonably satisfactorily or to the reasonable satisfaction of that Party.

Section 7.13. Interpretation. For the purpose of construing this Agreement, unless the context indicates otherwise, words in the singular number shall be deemed to include words in the plural number and vice versa, words in one gender shall be deemed to include words in other genders, and the word "person" shall be deemed to include a corporation or partnership. Headings of articles and sections are inserted only for convenience and are not, and shall not be deemed, a limitation on the scope of the particular articles or sections to which they refer.

Section 7.14. "Including". In this Agreement, whenever general words or terms are followed by the word "including" (or other forms of the word "include") and words of particular and specific meaning, the word "including without limitation," and the general words shall be construed in their widest extent, and shall not be limited to persons or things of the same general kind or class as those specifically mentioned in the words of particular and specific meaning.

Section 7.15. Notices. All notices or other communications required or desired to be given with respect to this Agreement shall be in writing and shall be delivered by hand or by courier service, or sent by registered or certified mail, return receipt requested, bearing adequate postage and properly addressed as provided below. Each notice given by mail shall be deemed to be given by the sender when received or refused by the Party intended to receive such notice; each notice delivered by hand or by courier service shall be deemed to have been given and received when actually received by the Party intended to receive such notice or when such Party refuses to accept delivery of such notice. Upon a change of address by either Party, such Party shall give written notice of such change to the other Party in accordance with the foregoing. Inability to deliver because of changed address or status of which no notice was given shall be deemed to be receipt of the notice sent, effective as of the date such notice would otherwise have been received.

To City:
City Manager
1100 City Hall
810 Union Street
Norfolk, VA 23510

With a copy to:
City Attorney
Office of the City Attorney
810 Union Street, Suite 900
Norfolk, VA 23510

To Foundation:
Mr. Richard Taylor

_____
_____
_____

With a copy to:
E. Diane Thompson, Esquire and
James B. Lonergan, Esquire
Pender & Coward, P. C.
222 Central Park Ave., Su. 400
Virginia Beach, VA 23462

Section 7.16. Entire Agreement. This Agreement constitutes the entire agreement between the Parties with respect to the Property and the Project and supersedes all prior understandings and writings, and this Agreement may be amended or modified only by a writing signed by City, and Foundation.

Section 7.17. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall comprise but a single document.

Section 7.18. Recordation. This Agreement may be recorded in the Clerk's Office of the Circuit Court of the City of Norfolk, Virginia, at the expense of the Party seeking recordation.

WITNESS the following signatures:

CITY OF NORFOLK

By:_____
Name:_____
Title:_____

ATTEST:

_____
City Clerk

COMMONWEALTH OF VIRGINIA
CITY OF NORFOLK, to-wit:

The foregoing instrument was acknowledged before me this _____ day of _____, 2016 by Marcus D. Jones, City Manager of the City of Norfolk and _____, Clerk of the City of Norfolk, who are personally known to me or have provided identification.

_____
Notary Public

My Commission Expires:_____

Registration No.:_____

APPROVED AS TO CONTENTS:

_____
Deputy City Manager

APPROVED AS TO FORM
AND CORRECTNESS:

_____
Assistant City Attorney

VIRGINIA HISTORIC RESTORATION FOUNDATION

By: _____
Title: _____
Date: _____

COMMONWEALTH OF VIRGINIA
CITY OF NORFOLK, to-wit:

The foregoing instrument was acknowledged before me this _____ day of _____, 2016 by _____ as _____ on behalf of Virginia Historic Restoration Foundation, who is personally known to me or has provided identification.

_____
Notary Public

My Commission Expires: _____

Registration No.: _____

EXHIBIT A—LEGAL DESCRIPTIONS

The following are draft legal descriptions for 227 West Freemason Street, Norfolk, Virginia and 334 Duke Street, Norfolk, Virginia, which collectively comprise the "Property" described in the Real Estate Purchase and Sale Agreement dated as of July 28, 2016, between the City of Norfolk, Virginia, and Virginia Historic Restoration Foundation. It is agreed that the legal descriptions of the properties described below shall be updated and amended, if necessary, to reflect any changes in the legal descriptions as shown on a title insurance commitment of the Property to be obtained by Virginia Historic Restoration Foundation, subject to the approval of the Buyer and the City Surveyor of the City of Norfolk, which approval shall not be unreasonably withheld, conditioned or delayed.

PARCEL ONE: 227 West Freemason Street

All that certain piece or parcel of land, with the buildings and improvements thereon situate, lying and being in the City of Norfolk, Virginia, and described according to that certain "Plat showing Proposed Widening of Duke Street", dated August, 1970, revised November, 1970, prepared by the Division of Surveys of the City of Norfolk, and recorded in the Clerk's Office of the Circuit Court of the City of Norfolk, Virginia, in Map Book 26, at page 36-I, as follows:

Beginning at the southeastern corner of Freemason and Duke Street, and proceeding thence along the southern side of Freemason Street South 68° 54' 18" East 75.93 feet to the property now or formerly belonging to Alexander L. Martone; thence along a line parallel to Duke Street South 21° 34' 42" West 95.5 feet to the northern boundary of the property now or formerly belonging to William M. Dabney, et al.; thence North 64° 54' 18" West 75.93 feet to the eastern line of Duke Street; thence along the eastern line of Duke Street North 21° 34' 42" East 95.5 feet to the point of beginning.

and

PARCEL TWO: 334 Duke Street

ALL THAT certain lot, piece or parcel of land, with any improvements thereon situate, lying and being in the City of Norfolk, Virginia, formerly numbered 332 Duke Street, and being more particularly described as follows:

Beginning at a point in the east side of Duke Street 95.8 feet, more or less, south of the southwest intersection of Duke Street and Freemason Street, and running thence eastwardly 71 feet, more or less, to a point; thence turning and running southwardly a distance of 41.56 feet, more or less, to a point; thence turning and running westwardly 71 feet, more or less, to a point in the east side of Duke Street a distance of 41.56 feet, more or less, to the point of beginning. This said property is shown on the old plat of Smith and Glebe, and is immediately south of and adjacent to property on the southeast corner of Duke Street and Freemason Street now (or formerly) belonging to the Norfolk Historic Foundation.

EXHIBIT B—FOUNDATION'S PROPOSAL

The Virginia Historic Restoration Foundation ("Foundation") is being organized by Judge Lydia Calvert Taylor and Mr. Richard Taylor. The Foundation will be a Virginia nonstock corporation and will be a not-for-profit organization. The mission of the Foundation will be the acquisition, rehabilitation or restoration, ownership, maintenance, preservation and utilization for historic and educational purposes of real property having historic significance and to stimulate the public's knowledge of and appreciation for the history of Norfolk, of the surrounding areas and of America.

The Foundation will apply to the IRS for recognition of its tax-exempt status as a 501(c)(3) organization which will enable it to solicit contributions to provide the funding for the rehabilitation or restoration of the Taylor Whittle House and other historically significant properties. It is anticipated that the financing for the rehabilitation or restoration of the Taylor Whittle House will be funded almost entirely by contributions.

Judge Taylor and Mr. Taylor, as founders of the Foundation, would like the Taylor-Whittle House, located at 227 W. Freemason Street, to be the first property to be rehabilitated or restored by the Foundation. Upon completion, the Taylor-Whittle House will be open for public visitation as envisioned by Miss Edmonia Whittle when she devised the property at her death and as spelled out in the guidelines of the National Trust for Historic Preservation.

The Foundation will enter into a rehabilitation agreement and conservation easements with the Virginia Board of Historic Resources (or another similar organization with the authority to administer such agreements) intended to continue in perpetuity. The intended rehabilitation is as discussed in the attached report entitled "Taylor Whittle House Assessment Update February 2015" with particular details of rehabilitation being on pages nine through twelve.

The Foundation would be empowered to sell a property to a qualified conservation buyer and use the proceeds therefrom to restore or rehabilitate other historically significant buildings.

The founders of the Foundation envision that the Norfolk Historical Society and the Junior League of Norfolk-Virginia Beach would once again use the Taylor-Whittle House as their meeting place, as they did in years past, as long as the Foundation continues to own the Taylor-Whittle House.

The Board of Directors of Virginia Historic Restoration Foundation will be composed of between five and ten members and represent a broad spectrum of organizations which have an interest in preserving history. It is anticipated that the initial Board of Directors will be composed of the following:

(1) Executive Director. The initial Executive Director will be Richard Taylor.

(2) Family Representative. The initial Family Representative will be Lydia C. Taylor who will hold office until her death, resignation, retirement, removal for cause, disqualification, or until she designates her successor. It is preferred, but not a requirement, that each successor Family Representative be from the Taylor Family.

(3) Norfolk Historical Society Representative. The initial Norfolk Historical Society Representative will be designated from the membership of the Norfolk Historical Society. Each successor Norfolk Historical Society Representative will be appointed by the

Norfolk Historical Society upon the recommendation of the then-serving Norfolk Historical Society Representative.

(4) Norfolk Preservation Alliance Representative. The initial Norfolk Preservation Alliance Representative will be designated from the membership of the Norfolk Preservation Alliance. Each successor Norfolk Preservation Alliance Representative will be appointed by the Norfolk Preservation Alliance upon the recommendation of the then-serving Norfolk Preservation Alliance Representative.

(5) Junior League of Norfolk – Virginia Beach Representative. The initial Junior League of Norfolk – Virginia Beach Representative will be designated from the membership of the Junior League of Norfolk – Virginia Beach. Each successor Junior League of Norfolk – Virginia Beach Representative will be appointed by the Junior League of Norfolk – Virginia Beach upon the recommendation of the then-serving Junior League of Norfolk – Virginia Beach Representative.

(6) Collegiate Representative. The initial Collegiate Representative will either a current professor or a professor emeritus at Norfolk State University, Old Dominion University, or Tidewater Community College and he or she will appoint his or her successor who must be either a current professor or a professor emeritus at Norfolk State University, Old Dominion University, or Tidewater Community College.

TMA

TYMOFF+MOSS ARCHITECTS

Taylor Whittle House Assessment Update

17 February 2015

TYMOFF+MOSS ARCHITECTS

Executive Summary

In January of 2015, Tymoff+Moss Architects was retained by the City of Norfolk's Department of Public Works to review and validate existing building assessment reports of the Taylor-Whittle House located at 227 West Freemason Street in Norfolk, Virginia.

The scope of this report includes:

- Review of Phase I Assessment Report by Hanbury Evans Wright Vlattas, 2002
- Review of Phase II Feasibility Assessment by Livas Group Architects, 2012
- Review of memorandum by Randy Lyall, 2013
- Revision (if needed) of recommendations based on code compliance
- Revision (if needed) of recommendations based on state and federal tax-credit rehabilitation standards
- Revision (if needed) of cost information
- Categorization of costs as code requirements or historic preservation requirements

Tymoff+Moss Architects was assisted by Commonwealth Preservation Group on historic rehabilitation issues and McPherson Design Group on structural engineering issues.

In general, the existing reports are very thorough in their documentation of the existing conditions. The revisions to repair-related recommendations mostly relate to conditions that were not visible during the previous inspections. The revision to historic preservation recommendations are intended to align more closely with state and federal tax-credit rehabilitation standards.

The revisions to cost information mostly involve inflating the costs for relevance in 2015. There were a number of items that appeared inaccurate due to clerical errors. Some items have been substantially changed based on local experience.

As the design of the repair and renovation work has not been completed, this report is general in nature. The better understand potential costs it would be beneficial to truly understand the intended use, scope of repair, and type and scope of renovation effort. Due to the renovation's small scale and specifically historic in nature budget estimating is difficult at this level. One possibility for refining cost projections would be to produce bridging design documents for contractor pricing.

Code Compliance

The intended use of the building post-renovation has been generally determined as office and meeting space, educational use, and open to the public for historic tours. The scope or extent of those uses and the way the building is prepared for those uses will affect the code compliance requirements. In general, Chapter 12 of the 2012 International Existing Building Code (IEBC) allows historic structures quite a bit of leeway contingent upon the approval of the building official.

The main points of code compliance can be broken down into Fire and Life Safety, Means of Egress, Structural, Electrical, Mechanical, Energy Conservation, and Accessibility.

Fire and Life Safety

The building is not required to have automatic fire-extinguishing systems, nor are exit signs required where they would damage the historic character of the building. A current code fire alarm system should be installed.

Means of Egress

Chapter 12 largely excuses historic buildings from extensive work to address means of egress so long as the existing conditions are reasonable and approved by the building official. A few doors may have to be re-hung to swing in the direction of egress, but the important historic doors (including the front door) are exempt.

The largest issue is whether or not the main stair rail is deemed structurally dangerous. We have assumed some amount of work for reinforcement.

Structural

The structural report performed by McPherson Design Group as part of the assessment by the Livas Group is largely still applicable. Per that report the project may require floor reinforcement over the entire second floor and the long span areas of the third floor. Specifically, the floor reinforcement may come in the form of laminated veneer lumber (LVL) placed directly adjacent to existing framing.

Since the McPherson report, a portion of the third floor plaster ceiling above the stairwell has collapsed. The revealed roof structure is in need of replacement. It is difficult to extrapolate a determination of the repairs needed, but an assumption will be made for costing purposes.

Electrical

The existing electrical system constitutes an unsafe condition and should be replaced to comply with current electrical codes.

Mechanical

The only requirements for applying current mechanical codes to existing buildings relate to kitchen and bathroom exhaust. The existing mechanical system is operational but not as efficient as it could be.

Energy Conservation

There are no requirements for applying current energy conservation standards to historic buildings. When the level of intervention allows, an effort should be made to upgrade the facility to promote lower energy consumption. For example, when the roofs are dismantled, inspected, and rebuilt they should be insulated to the extent possible. Any new electrical or mechanical systems should be as efficient as is economically prudent.

Accessibility

The IEBC requires that there are accessible parking spaces, an accessible entrance, an accessible route connecting the parking to the entry, and an accessible route from that entrance to primary function areas. This can be accomplished with the existing parking, sidewalk, and chair lift that provides access to the east porch. Inside the building, the existing restroom in the south addition would be reconfigured and elevated to match the floor level of the main house. This would provide the minimal amount of accessibility required.

To provide more comprehensive access an elevator could be installed within the boundaries of the east porch to access the second floor of the main house. The costs assume a small commercial elevator and accompanying enclosure. This level of accessibility would provide universal access to the most historically significant spaces within the house.

Historic Rehabilitation

There are many different options for retaining the historic nature of the Taylor-Whittle House. We have approached this report from a rehabilitation standpoint because it allows the most flexibility for modern conveniences without compromising the ability to pursue tax credits either now or in the future.

The U.S. Secretary of the Interior has established four levels of standards for the treatment of historic buildings. The standards are Preservation, Rehabilitation, Restoration, and Reconstruction. A brief summary of each is provided below.

Preservation

The standards for preservation prioritize retention of all remaining historic fabric through conservation, maintenance, and repair. The underlying philosophy is to ensure recognition of the evolution of the building over time. The Preservation standards significantly limit one's ability to alter the building for modern use.

Rehabilitation

Slightly less restrictive than Preservation, the Rehabilitation standards are also designed to ensure preservation of the historic features and historic alterations. However, the Rehabilitation standards are designed to accommodate necessary appropriate alterations required to comply with building code requirements and the needs of modern occupants.

Restoration

The Standards for Restoration require selection of a specific period of time which will be used to interpret the history of the building. Alterations made outside of that time period must be removed, thus limiting the ability to introduce modern technology and accommodations.

Reconstruction

Reconstruction standards are utilized for buildings which are no longer extant but have thorough written or photographic records. These standards are utilized when a resource will be recreated using all new materials.

Preservation, Rehabilitation, and Restoration would all be accepted maintenance treatments for the Taylor-Whittle House. A rehabilitation approach maintains the building's developmental history. The building's period of significance ends in 1922. Therefore, by rehabilitation standards, any modifications to the Taylor-Whittle House that occurred prior to this date would be considered historically significant and should be retained.

Appropriate rehabilitations of historic facilities can qualify for tax credits to help offset the costs of renovation. The state of Virginia offers a credit equivalent to 25% of qualified rehabilitation expenditures. The federal government offers an additional 20% credit available for income-producing properties. To obtain these credits, an owner must participate in a 3-part review process to fully disclose the proposed scope of work and its impact on historic material. State and federal tax credit reviewers will evaluate the proposed work and offer feedback on the project. As the referenced standards are highly philosophical in nature, the reviewers' decisions are strongly rooted in precedent.

The Secretary of Interior's Standards for Rehabilitation are:
1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Mothballing would also be considered an acceptable temporary preservation alternative for the Taylor-Whittle House. The U.S. Department of the Interior and National Park Service have established Preservation Guidance for mothballing historic structures called Preservation Brief #31: Mothballing Historic Buildings. According to the preservation brief, "*when all means of finding a productive use for a historic building have been exhausted or when funds are not currently available to put a deteriorating structure into a useable condition, it may be necessary to close up the building temporarily to protect it from the weather as well as to secure it from vandalism. This process, known as mothballing, can be a necessary and effective means of protecting the building while planning the property's future, or raising money for a preservation, rehabilitation or restoration project*". Mothballing can protect a building for upwards of 10 years. The success of mothballing is dependent on the implementation of an appropriate maintenance and monitoring plan.

In general, proper long-term mothballing requires exterior stabilization, security protection, interior ventilation, and continued maintenance and surveillance monitoring. The nine steps involved in properly mothballing a building are:

Develop Historical Background and Context

1. Document the architectural and historical significance of the building.
2. Prepare a condition assessment of the building.

Stabilization

3. Structurally stabilize the building, based on a professional condition assessment.
4. Exterminate pests, including termites and rodents.
5. Protect the exterior from moisture penetration.

Mothballing

6. Secure the building and its component features to reduce vandalism or break-ins.
7. Provide adequate ventilation to the interior.
8. Secure or modify utilities and mechanical systems.
9. Develop and implement maintenance and monitoring plans for protection.

A copy of Preservation Brief #31: Mothballing Historic Buildings has been included in Appendix A for further information.

Cost Information

In general, the existing reports are very thorough in their documentation of the existing conditions. The previous cost estimate largely aligns with the observed deficiencies and recommendations made in the previous report.

The revisions to repair and code related recommendations mostly relate to conditions that were not visible during the previous inspections. The revision to historic preservation recommendations are intended to align more closely with state and federal tax-credit rehabilitation standards.

The revisions to cost information mostly involve inflating the costs for relevance in 2015. There were a number of items that appeared inaccurate due to omission or clerical errors. Some items have been substantially changed based on local experience.

The previous report included an allowance for archeological exploration. This was removed from the general contractor's portion of the work but retained in the overall project cost if such action was desired.

There was no discussion of possible site work either in the previous report or with any stakeholder. The intended use will likely have a great deal of impact on what, if any, work is performed on site. An allowance for site work has been included as a place-holder.

The projected total project cost is $2,378,423.

The revised cost estimate pages follow.

Summary

Construction Cost	TOTAL
Exterior	525,130
Interior	594,651
PME	431,096
Removals	5,611
Sitework Allowance	50,000
Construction Cost Subtotal	1,606,488
GC Overhead and Profit (12%)	192,779
Construction Cost Total	1,799,267
Fees & Miscellany	
Archeological Dig Allowance	20,000
Tax Credit Preparation Fees (estimate)	60,000
Professional Design Fees (10%)	179,927
Reimbursables (estimate)	3,000
Structural Special Inspections (estimate)	6,000
Contingency & Total	
Project Cost Subtotal	2,068,194
Project Contingency (15%)	310,229
Total Project Cost	**2,378,423**

Exterior Scope

Main House	QTY	Unit	Material	Labor	Sub Cost	TOTAL	Priority
Remove paint at stone work	250	SF	1,431	798	-	2,229	4
Remove and replace brickwork	480	SF	-	-	7,560	7,560	4
Repoint joints at second floor porch	480	SF	-	-	2,016	2,016	1
Clean all masonry	4800	SF	-	-	12,600	12,600	4
Remove and replace rotten wood trim	480	SF	5,040	3,024		8,064	1
Remove and replace stone lintels	10	EA	6,000	3,000		9,000	4
Replace missing shutters	14	EA	2,100	2,100		4,200	4
Repair protective bars at basement windows	9	EA	900	2,250		3,150	2
Restore lime wash finish at east porch	400	SF	-	-	1,400	1,400	4
Restore original window	23	EA	-	13,800	-	13,800	4
Replace storm windows	23	EA	3,450	3,450	-	6,900	2
Restore stucco rendering	640	SF	2,112	1,760	-	3,872	4
Repair roof structure	600	SF	1,980	2,640	-	4,620	1
Resheath roof, repair slate roof	2000	SF	33,000	27,000	-	60,000	1
Subtotal Cost			56,013	59,822	23,576	139,411	
Subcontractor Markups			5,769	6,162	2,428	14,359	
GC Markup			41,703	82,875		124,579	
Total						278,349	
Front Porch							
Refinish all wood surfaces	400	SF	4,200	10,500	-	14,700	4
Restore stucco renderings	2	EA	-	1,008	-	1,008	4
Remove & replace slate roof	120	SF	-	-	1,323	1,323	1
Replace sandstone step treads	8	EA	6,400	2,400	-	8,800	4
Restore molded column bases	2	EA	300	200	-	500	4
Provide new handrail	1	LS	1,500	500	-	2,000	4
Remove railing at steps	10	LF	-	100	-	100	4
Clean & restore bootscrapers	2	EA	-	150	-	150	4
Remove light and restore column lights	2	EA	410	200	-	610	4
Subtotal Cost			12,810	15,058	1,323	29,191	
Subcontractor Markups			1,319	1,551	136	3,007	
GC Markup			9,537	20,861		30,398	
Total						62,596	
East Porch							
Restore porch to original form	380	SF	-	-	21,945	21,945	4
Restore jib door & frame at second floor	2	EA	-	-	2,625	2,625	4
Restore paint & limewash at second floor	456	SF	-	-	1,400	1,400	4
Provide 2 stop elevator	1	LS	-	-	50,000	50,000	2
Provide elevator enclosure	1	LS	-	-	50,000	50,000	2
Subtotal Cost			-	-	125,970	125,970	
Subcontractor Markups			-	-	12,975	12,975	
GC Markup			-	-		-	
Total						138,945	
South Addition							
Clean & paint wall	1200	SF	-	-	3,105	3,105	4
Repair existing standing seam roof	271	SF	-	-	4,000	4,000	1
Restore original rear door	1	EA	-	-	1,312	1,312	4
Replace storm windows	2	EA	300	300	-	600	2
Restore original window	2	EA	-	3,500	-	3,500	4
Subtotal Cost			300	3,800	8,417	12,517	
Subcontractor Markups			31	391	867	1,289	
GC Markup			223	5,264		5,488	
Total						19,294	
Kitchen Wing							
Repair existing standing seam roof	598	SF	-	-	8,000	8,000	1
Restore door, frame, & wood steps	1	LS	-	-	3,500	3,500	4
Replace storm windows	7	EA	1,050	1,050	-	2,100	2
Restore original window	7	EA	-	3,500	-	3,500	4
Subtotal Cost			1,050	4,550	11,500	17,100	
Subcontractor Markups			108	469	1,185	1,761	
GC Markup			782	6,303		7,085	
Total						25,946	
Exterior Total						**525,130**	

Interior Scope

Basement	QTY	Unit	Material	Labor	Sub Cost	TOTAL	Priority
Repair or replace existing windows	9	EA	2,362	592	-	2,954	4
New fireplace fittings	1	LS	1,050	504	-	1,554	4
Fire rated ceiling	1614	SF	4,800	8,000	-	12,800	1
Fire rated door	2	EA	1,500	500	-	2,000	1
Cast iron grille 4x2	1	EA	735	130	-	865	4
Subtotal Cost			10,447	9,726	-	20,173	
Subcontractor Markups			1,076	1,002	-	2,078	
GC Markup			7,778	13,474		21,252	
Total						43,503	
First Floor							
Restore window & shutters	6	EA	-	6,000	-	6,000	4
Restore hardware	4	EA	900	600	-	1,500	4
Restore original finishes	2863	SF	-	-	28,343	28,343	4
Restore plaster	320	SF	550	1,600	-	2,150	4
Remove, restore, reinstall antique lantern	1	EA	100	200	-	300	4
Remove wall layering & restore to original	2880	SF	2,160	-	-	2,160	4
Restore jib door & frame	3	EA	-	-	3,938	3,938	4
Restore floor finish	1994	SF	1,200	4,500	-	5,700	4
Refurbish all surfaces to high standards	2863	SF	-	-	28,343	28,343	4
Remove existing wall & ceiling surfaces to research	320	SF	-	1,600	-	1,600	4
Reinforce existing handrail	1	LS	4,000	4,000	-	8,000	4
Provide new bathroom	1	LS	-	-	6,000	6,000	2
Reconfigure ADA bathroom	1	LS	-	-	10,000	10,000	1
Remove and replace plaster ceiling	1600	SF	4,500	9,000	-	13,500	1
Catering kitchen upgrade	1	LS	-	-	50,000	50,000	3
Subtotal Cost			13,410	27,500	126,624	167,534	
Subcontractor Markups			1,381	2,833	13,042	17,256	
GC Markup			9,984	38,098		48,082	
Total						232,871	
Second Floor							
Restore window & shutters	11	EA	-	11,000	-	11,000	4
Restore original finishes	1994	SF	-	-	19,740	19,740	4
Restore plaster	1994	SF	3,290	9,870	-	13,160	4
Restore floor finish	1994	SF	1,200	4,500	-	5,700	4
Restore wall and trim	320	LF	4,224	2,112	-	6,336	4
Restore hardware	4	EA	900	600	-	1,500	4
Remove excessive paint at mouldings	640	LF	4,416	18,400	-	22,816	4
Reverse south door to original swing	1	EA	300	130	-	430	4
Restore jib door & frame	4	EA	-	-	5,251	5,251	4
Restore south partition to original line	120	SF	1,260	2,520	-	3,780	4
Restore original crown moulding	320	LF	5,520	1,840	-	7,360	4
Reset door & frame at original plane	1	EA	100	100	-	200	4
Remove dressing room completely	2	LS	-	2,016	-	2,016	2
Remove bath room completely	1	LS	-	1,512	-	1,512	2
Restore original window at west wall	1	EA	700	700	-	1,400	4
Reinforce floor	1600	SF	9,600	8,000	-	17,600	1
Remove and replace plaster ceiling	960	SF	2,700	5,400	-	8,100	1
Subtotal Cost			34,210	68,700	24,991	127,901	
Subcontractor Markups			3,524	7,076	2,574	13,174	
GC Markup			25,470	95,175		120,645	
Total						261,720	
Third Floor							
Restore semi-circular window	1	EA	3,000	2,000	-	5,000	4
Restore hardware	3	EA	675	450	-	1,125	4
Restore wall & trim	600	LF	3,600	1,350	-	4,950	4
Reinstall door	1	EA	-	100	-	100	4
Replace plaster	150	SF	250	800	-	1,050	4
Replace chairrail & base	102	LF	590	215	-	805	4
Restore existing casements	3	EA	2,400	200	-	2,600	4
Remove paint on window & trim	3	EA	100	400	-	500	4
Remove and replace light	3	EA	210	100	-	310	4
Reinforce floor	960	SF	5,760	4,800	-	10,560	1
Subtotal Cost			16,585	10,415	-	27,000	
Subcontractor Markups			1,708	1,073	-	2,781	
GC Markup			12,348	14,429		26,777	
Total						56,558	
Interior Total						**594,651**	

Plumbing, Mechanical, and Electrical Scope

Plumbing	QTY	Unit	Material	Labor	Sub Cost	TOTAL	Priority
Demo existing fixtures and piping	17	EA	-	2,231	-	2,231	2
Supply & waste riser: remove & cap	1	LS	55	510	-	565	2
New supply & waste riser	1	LS	300	510	-	810	2
Reroute condensate line	1	EA	100	200	-	300	2
Piping	16	EA	4,956	6,888	-	11,844	2
Plumbing fixture & rough-in	16	EA	5,880	1,848	-	7,728	2
Wall hydrant	4	EA	315	210	-	525	2
40 GAL water heater	1	EA	635	158	-	793	2
Subtotal Cost			12,241	12,555	-	24,796	
Subcontractor Markups			1,261	1,293	-	2,554	
GC Markup			9,114	17,393		26,507	
Total						53,857	
HVAC							
Ductwork	8103	SF	26,715	18,888	-	45,603	3
Insulation	8103	SF	4,680	2,127	-	6,807	3
Inspect & seal off chimney opening	6	EA	630	378	-	1,008	3
Controls	3	EA	331	315	-	646	3
Remove & replace toilet exhaust fans	3	EA	346	394	-	740	3
Air-air heat pump (5 ton)	2	EA	7,350	2,100	-	9,450	3
Air-air heat pump (2 ton)	1	EA	2,205	1,100	-	3,305	3
Demo AHU & piping	2	EA	-	1,785	-	1,785	3
Demo boiler	1	EA	-	446	-	446	3
Demo pumps	2	EA	-	294	-	294	3
Demo fuel line & cap tank	1	LS	110	525	-	635	3
Subtotal Cost			42,367	28,352	-	70,719	
Subcontractor Markups			4,364	2,920	-	7,284	
GC Markup			31,543	39,278		70,821	
Total						148,824	
Electrical							
Elevator electrical components	1	EA	600	400	-	1,000	1
Panelboard (400A)	1	EA	2,730	945	-	3,675	1
Disconnect switches at mechanical units	7	EA	404	1,102	-	1,506	1
Panelboard (200A)	1	EA	966	430	-	1,396	1
400A feeder	100	LF	5,670	2,940	-	8,610	1
200A feeder	100	LF	2,940	1,575	-	4,515	1
Receptacles 2W/SF	8103	SF	5,530	11,656	-	17,186	1
Circuits (20A)	40	EA	2,352	5,292	-	7,644	1
Lighting 1.6W/SF	8103	SF	15,996	18,122	-	34,118	1
Lighting switches	8103	SF	2,382	4,935	-	7,317	1
Lighting circuits	40	EA	2,352	5,292	-	7,644	1
Subtotal Cost			41,922	52,689	-	94,611	
Subcontractor Markups			4,318	5,427	-	9,745	
GC Markup			31,212	72,994		104,206	
Total						208,562	
Fire Alarm							
Remove existing fire alarm system	1	LS	-	504	-	504	1
Current code fire alarm system	8103	SF	2,200	2,600	-	4,800	1
Subtotal Cost			2,200	3,104	-	5,304	
Subcontractor Markups			227	320	-	546	
GC Markup			1,638	4,300		5,938	
Total						11,788	
Voice/Data							
Remove existing phone system	1	LS	-	550	-	550	3
New wireless intercom system	1	LS	525	510	-	1,035	3
Voice/Data outlet	6	EA	1,200	900	-	2,100	3
Subtotal Cost			1,725	1,960	-	3,685	
Subcontractor Markups			178	202	-	380	
GC Markup			1,284	2,715		4,000	
Total						8,064	
PME Total						**431,096**	

Removal Scope

Removals	QTY	Unit	Material	Labor	Sub Cost	TOTAL	Priority
Remove drywall door closure	80	SF	-	400	-	400	4
Remove existing finishes in closet	1	LS	-	480	-	480	4
Remove ceiling plaster	25	SF	-	75	-	75	4
Remove closer at first floor bathroom	1	LS	-	480	-	480	4
Remove finishes at second floor bathroom	1	LS	-	120	-	120	2
Remove second floor wood flooring	100	SF	-	350	-	350	4
Remove third floor wood flooring	100	SF	-	350	-	350	4
Subtotal Cost			-	2,255	-	2,255	
Subcontractor Markups			-	232	-	232	
GC Markup			-	3,124		3,124	
Total						5,611	
Removals Total						**5,611**	

Cost Categorization

The costs proposed in the previous report and revised in this report do not fall cleanly into the categories of *code required* or *tax credit approved historic rehabilitation*. It may be more useful to assign priorities beginning with minimum code and building envelope requirements and ending with full historic rehabilitation.

In the sections below we have manipulated the spreadsheet to categorize costs. If divided into distinct scopes of work or separate contracts some components may not scale correctly. These areas of question include but are not limited to general labor, contractor profit, professional fees, and contingency.

It is the intent that none of the higher priority work would jeopardize the historic nature of the facility or the ability to pursue a tax credit approved historic rehabilitation. All of the work described in this report is eligible for credit, therefore the applications should be started before any work on site is begun.

A table that summarizes the costs for the potential priority options follows.

Priority 1: Minimum Code and Building Envelope Requirements

The first priority will be to satisfy the basic minimum code requirements and improve the building envelope enough to avoid further deterioration. Most significantly this includes the entire electrical and fire alarm scope of work. It also includes roof repair, brick repointing, floor reinforcement, and an accessible restroom.

The projected cost for this scope of work is approximately $794,957.

Priority 2: Increased Accessibility and Building Envelope Improvements

The second priority should be to increase the accessibility in the event of public use of the building. The single largest component to this scope is the addition of a small commercial elevator within the extents of the east porch. Allowing access from the first floor to the second floor reaches the most historically significant spaces within the house. While more expensive than a chair lift or residential elevator, a commercial elevator would allow regular use without increased maintenance.

Also included in this scope of work are replacement of basement windows, repair to the protective bars at basement windows, and storm windows over each existing window. While not absolutely necessary, and therefore not in Priority 1, they would greatly improve the safety, security, and efficiency of the facility.

The projected cost for this scope of work is approximately $315,290.

Priority 3: Replacement Building Systems

Third priority may be to replace the remaining building systems. There are existing, modern HVAC and voice/data systems in the building. While operational and relatively new, replacement systems would be more efficient and provide higher levels of service and comfort for future occupants.

Also included in this scope of work is an allowance for upgrading the kitchen to a catering kitchen. It is anticipated that this space is used for warming and staging food prepared elsewhere by a caterer rather than a kitchen for cooking on-site. Preparing food on-site requires a full commercial kitchen, which will be considerably more expensive and perhaps difficult to accommodate in this historic structure.

The projected cost for this scope of work is approximately $318,816.

Priority 4: Tax Credit Historic Rehabilitation

The previous priorities do not include any amounts for purely aesthetic improvements that may be necessary for tenant occupation. All work should be carefully considered in order to preserve the capability for future tax credit approval. Therefore, any purely aesthetic improvements such as painting the walls quickly relate to historic rehabilitation. As such, it was decided to retain all like work in this scope.

This scope itself can and should be prioritized when the time is right. Some aspects are more historically significant and more easily appreciated by building tenants or touring public.

There are also individual items that are questionable or unique enough that it is difficult to predict what the Department of Historic Resources will say. For the purposes of this report, we have made some assumptions about future interpretations.

The projected cost for this scope of work is approximately $840,805.

Allowances

The allowances for archeological exploration or site work have not been included in any of the scopes above.

Cost Categorization

Construction Cost	Priority 1	Priority 2	Priority 3	Priority 4
Materials + Markup	208,774	33,146	81,461	129,779
Labor + Markup	308,948	57,862	75,427	294,284
Sub Cost + Markup	27,949	116,918	55,150	155,591
Construction Cost Subtotal	545,671	207,926	212,038	579,655
GC Overhead and Profit (12%)	65,481	24,951	25,445	69,559
Construction Cost Total	611,152	232,878	237,483	649,213
Fees & Miscellany				
Tax Credit Preparation Fees (estimate)	15,000	15,000	15,000	15,000
Professional Design Fees (10%)	61,115	23,288	23,748	64,921
Reimbursables (estimate)	1,000	1,000	1,000	1,000
Structural Special Inspections (estimate)	3,000	2,000		1,000
Contingency & Total				
Project Cost Subtotal	691,267	274,165	277,231	731,134
Project Contingency (15%)	103,690	41,125	41,585	109,670
Total Cost per Scope	**794,957**	**315,290**	**318,816**	**840,805**

Appendix A:
Preservation Brief #31: Mothballing Historic Buildings

31 PRESERVATION BRIEFS

Mothballing Historic Buildings

Sharon C. Park, AIA

U.S. Department of the Interior
National Park Service
Cultural Resources
Heritage Preservation Services

When all means of finding a productive use for a historic building have been exhausted or when funds are not currently available to put a deteriorating structure into a useable condition, it may be necessary to close up the building temporarily to protect it from the weather as well as to secure it from vandalism. This process, known as mothballing, can be a necessary and effective means of protecting the building while planning the property's future, or raising money for a preservation, rehabilitation or restoration project. If a vacant property has been declared unsafe by building officials, stabilization and mothballing may be the only way to protect it from demolition.

This Preservation Brief focuses on the steps needed to "de-activate" a property for an extended period of time. The project team will usually consist of an architect, historian, preservation specialist, sometimes a structural engineer, and a contractor. Mothballing should not be done without careful planning to ensure that needed physical repairs are made prior to securing the building. The steps discussed in this Brief can protect buildings for periods of up to ten years; long-term success will also depend on continued, although somewhat limited, monitoring and maintenance. For all but the simplest projects, hiring a team of preservation specialists is recommended to assess the specific needs of the structure and to develop an effective mothballing program.

A vacant historic building cannot survive indefinitely in a boarded-up condition, and so even marginal interim uses where there is regular activity and monitoring, such as a caretaker residence or non-flammable storage, are generally preferable to mothballing. In a few limited cases when the vacant building is in good condition and in a location where it can be watched and checked regularly, closing and locking the door, setting heat levels at just above freezing, and securing the windows may provide sufficient protection for a period of a few years. But if long-term mothballing is the only remaining option, it must be done properly (see fig. 1 & 2). This will require stabilization of the exterior, properly designed security protection, generally some form of interior ventilation - either through mechanical or natural air exchange systems - and continued maintenance and surveillance monitoring.

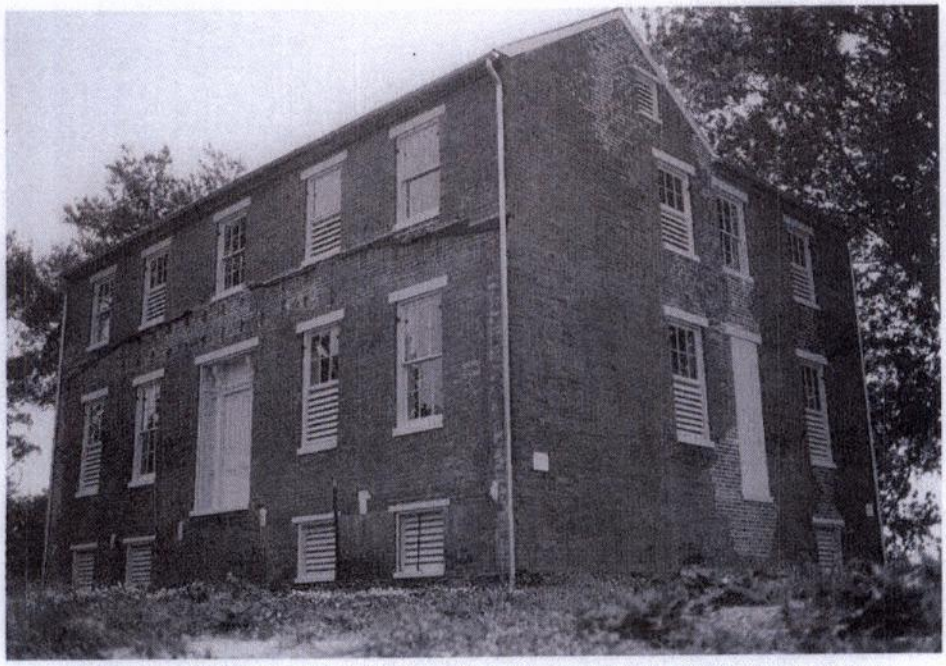


Figure 1. Proper mothballing treatment: This building has been successfully mothballed for 10 years because the roof and walls were repaired and structurally stabilized, ventilation louvers were added, and the property is maintained. Photo: Charles E. Fisher, NPS.

Comprehensive mothballing programs are generally expensive and may cost 10% or more of a modest rehabilitation budget. However, the money spent on well-planned protective measures will seem small when amortized over the life of the resource. Regardless of the location and condition of the property or the funding available, the following 9 steps are involved in properly mothballing a building:

Figure 2. Improper treatment: Boarding up without adequate ventilation, lack of maintenance, and neglect of this property have accelerated deterioration. Photo; NPS file.

Documentation

1. Document the architectural and historical significance of the building.

2. Prepare a condition assessment of the building.

Stabilization

3. Structurally stabilize the building, based on a professional condition assessment.

4. Exterminate or control pests, including termites and rodents.

5. Protect the exterior from moisture penetration.

Mothballing

6. Secure the building and its component features to reduce vandalism or break-ins.

7. Provide adequate ventilation to the interior.

8. Secure or modify utilities and mechanical systems.

9. Develop and implement a maintenance and monitoring plan for protection.

These steps will be discussed in sequence below. Documentation and stabilization are critical components of the process and should not be skipped over. Mothballing measures should not result in permanent damage, and so each treatment should be weighed in terms of its reversibility and its overall benefit.

Documentation

Documenting the historical significance and physical condition of the property will provide information necessary for setting priorities and allocating funds. The project team should be cautious when first entering the structure if it has been vacant or is deteriorated. It may be advisable to shore temporarily areas appearing to be structurally unsound until the condition of the structure can be fully assessed (see fig. 3). If pigeon or bat droppings, friable asbestos or other health hazards are present, precautions must be taken to wear the appropriate safety equipment when first inspecting the building. Consideration should be given to hiring a firm specializing in hazardous waste removal if these highly toxic elements are found in the building.

Documenting and recording the building. Documenting a building's history is important because evidence of its true age and architectural significance may not be readily evident. The owner should check with the State Historic Preservation Office or local preservation commission for assistance in researching the building. If the building has never been researched for listing in the National Register of Historic Places or other historic registers, then, at a minimum, the following should be determined:

- The overall historical significance of the property and dates of construction;
- the chronology of alterations or additions and their approximate dates; and,
- types of building materials, construction techniques, and any unusual detailing or regional variations of craftsmanship.

Old photographs can be helpful in identifying early or original features that might be hidden under modern materials. On a walk-through, the architect, historian, or preservation specialist should identify the architecturally significant elements of the building, both inside and out (see fig.4).

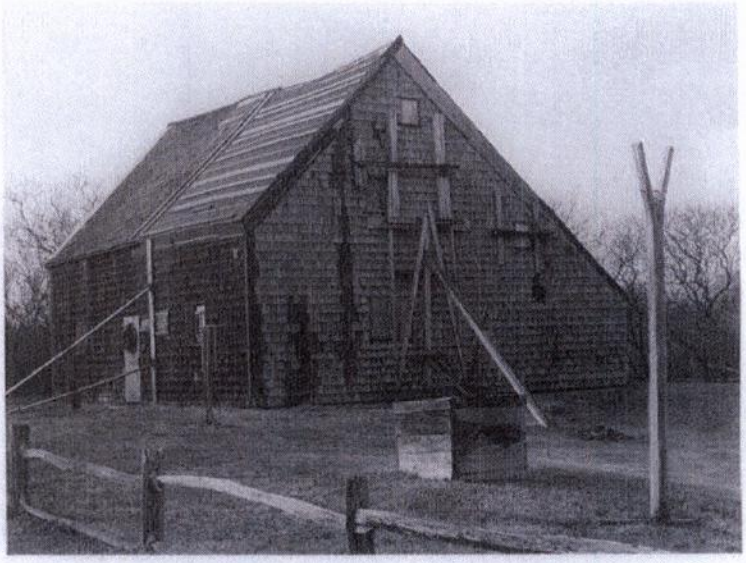


Figure 3. Buildings seriously damaged by storms or deterioration may need to be braced before architectural evaluations can be made. Jethro Coffin House. Photo: John Milner Architects.

Figure 4. Documenting the building's history, preparing schematic plans, and assessing the condition of the building will provide necessary information on which to set priorities for stabilization and repair prior to securing the building. Photo: Frederick Lindstrom, HABS.

By understanding the history of the resource, significant elements, even though deteriorated, may be spared the trash pile. For that reason alone, any materials removed from the building or site as part of the stabilization effort should be carefully scrutinized and, if appearing historic, should be photographed, tagged with a number, inventioried, and safely stored, preferably in the building, for later retrieval (see fig. 5).

A site plan and schematic building floor plans can be used to note important information for use when the building is eventually preserved, restored, or rehabilitated. Each room should be given a number and notations added to the plans regarding the removal of important features to storage or recording physical treatments undertaken as part of the stabilization or repair.

Because a mothballing project may extend over a long period of time, with many different people involved, clear records should be kept and a building file established. Copies of all important data, plans, photographs, and lists of consultants or contractors who have worked on the property should be added to the file as the job progresses.

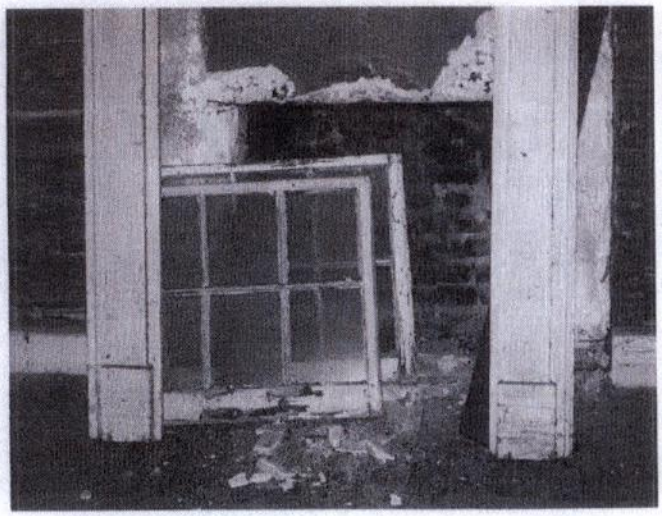


Figure 5. Loose or detached elements should be identified, tagged and stored, preferably on site. Photo: NPS files.

Recording all actions taken on the building will be helpful in the future.

The project coordinator should keep the building file updated and give duplicate copies to the owner. A list of emergency numbers, including the number of the key holder, should be kept at the entrance to the building or on a security gate, in a transparent vinyl sleeve.

Preparing a condition assessment of the building. A condition assessment can provide the owner with an accurate overview of the current condition of the property. If the building is deteriorated or if there are significant interior architectural elements that will need special protection during the mothballing years, undertaking a condition assessment is highly recommended, but it need not be exhaustive.

A modified condition assessment, prepared by an architect or preservation specialist, and in some case a structural engineer, will help set priorities for repairs necessary to stabilize the property for both the short and long-term. It will evaluate the age and condition of the following major elements: foundations; structural systems; exterior materials; roofs and gutters; exterior porches and steps; interior finishes; staircases; plumbing, electrical, mechanical systems; special features such as chimneys; and site drainage.

To record existing conditions of the building and site, it will be necessary to clean debris from the building and to remove unwanted or overgrown vegetation to expose foundations. The interior should be emptied of its furnishing (unless provisions are made for mothballing these as well), all debris removed, and the interior swept with a broom. Building materials too deteriorated to repair, or which have come detached, such as moldings, balusters, and decorative plaster, and which can be used to guide later preservation work, should be tagged, labeled and saved.

Photographs or a videotape of the exterior and all interior spaces of the resource will provide an invaluable record of "as is" conditions. If a videotape is made, oral commentary can be provided on the significance of each space and architectural feature. If 35mm photographic prints or slides are made, they should be numbered, dated, and appropriately identified. Photographs should be cross-referenced with the room numbers on the schematic plans. A systematic method for photographing should be developed; for example, photograph each wall in a room and then take a corner shot to get floor and ceiling portions in the picture. Photograph any unusual details as well as examples of each window and door type.

For historic buildings, the great advantage of a condition assessment is that architectural features, both on the exterior as well as the interior, can be rated on a scale of their importance to the integrity and significance of the building. Those features of the highest priority should receive preference when repairs or protection measures are outlined as part of the mothballing process. Potential problems with protecting these features should be identified so that appropriate interim solutions can be selected. For example, if a building has always been heated and if murals, decorative plaster walls, or examples of patterned wall paper are identified as highly significant, then special care should be taken to regulate the interior climate and to monitor it adequately during the

mothballing years. This might require retaining electrical service to provide minimal heat in winter, fan exhaust in summer, and humidity controls for the interior.

Stabilization

Stabilization as part of a mothballing project involves correcting deficiencies to slow down the deterioration of the building while it is vacant. Weakened structural members that might fail altogether in the forthcoming years must be braced or reinforced; insects and other pests removed and discouraged from returning; and the building protected from moisture damage both by weatherizing the exterior envelope and by handling water run-off on the site. Even if a modified use or caretaker services can eventually be found for the building, the following steps should be addressed.

Structurally stabilizing the building. While bracing may have been required to make the building temporarily safe for inspection, the condition assessment may reveal areas of hidden structural damage. Roofs, foundations, walls, interior framing, porches and dormers all have structural components that may need added reinforcement. Structural stabilization by a qualified contractor should be done under the direction of a structural engineer or a preservation specialist to ensure that the added weight of the reinforcement can be sustained by the building and that the new members do not harm historic finishes (see fig. 6). Any major vertical post added during the stabilization should be properly supported and, if necessary, taken to the ground and underpinned.

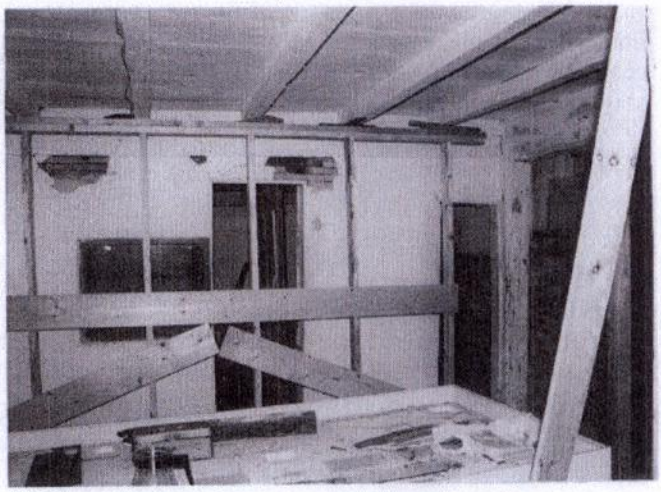


Figure 6. Interior bracing which will last the duration of the mothballing will protect weakened structural members. Jethro Coffin House. Photo: John Milner Architects.

If the building is in a northern climate, then the roof framing must be able to hold substantial snow loads. Bracing the roof at the ridge and mid-points should be considered if sagging is apparent. Likewise, interior framing around stair openings or under long ceiling spans should be investigated. Underpinning or bracing structural piers weakened by poor drainage patterns may be a good precaution as well. Damage caused by insects, moisture, or from other causes should be repaired or reinforced and, if possible, the source of the damage removed. If features such as porches and dormers are so severely deteriorated that they must be removed, they should be documented, photographed, and portions salvaged for storage prior to removal.

If the building is in a southern or humid climate and termites or other insects are a particular problem, the foundation and floor framing should be inspected to ensure that there are no major structural weaknesses. This can usually be done by observation from the crawl space or basement. For those structures where this is not possible, it may be advisable to lift selective floor boards to expose the floor framing. If there is evidence of pest damage, particularly termites, active colonies should be treated and the structural members reinforced or replaced, if necessary.

Controlling pests. Pests can be numerous and include squirrels, raccoons, bats, mice, rats, snakes, termites, moths, beetles, ants, bees and wasps, pigeons, and other birds. Termites, beetles, and carpenter ants destroy wood. Mice, too, gnaw wood as well as plaster, insulation, and electrical wires. Pigeon and bat droppings not only damage wood finishes but create a serious and sometimes deadly health hazard.

If the property is infested with animals or insects, it is important to get them out and to seal off their access to the building. If necessary, exterminate and remove any nests or hatching colonies. Chimney flues may be closed off with exterior grade plywood caps, properly ventilated, or protected with framed wire screens. Existing vents, grills, and louvers in attics and crawl spaces should be screened with bug mesh or heavy duty wire, depending on the type of pest being controlled. It may be advantageous to have damp or infected wood treated with insecticides (as permitted by each state) or preservatives, such as borate, to slow the rate of deterioration during the time that the building is not in use.

Securing the exterior envelope from moisture penetration. It is important to protect the exterior envelope from moisture penetration before securing the building. Leaks from deteriorated or damaged roofing, from around windows and doors, or through deteriorated materials, as well as ground moisture from improper site run-off or rising damp at foundations, can cause long-term damage to interior finishes and structural systems. Any serious deficiencies on the exterior, identified in the condition assessment, should be addressed.

To the greatest extent possible, these weatherization efforts should not harm historic materials. The project budget may not allow deteriorated features to be fully repaired or replaced in-kind. Non-historic or modern materials may be used to cover historic surfaces temporarily, but these treatments should not destroy valuable evidence necessary for future preservation work. Temporary modifications should be as visually compatible as possible with the historic building.

Roofs are often the most vulnerable elements on the building exterior and yet in some ways they are the easiest element to stabilize for the long term, if done correctly. "Quick fix" solutions, such as tar patches on slate roofs, should be avoided as they will generally fail within a year or so and may accelerate damage by trapping moisture. They are difficult to undo later when more permanent repairs are undertaken. Use of a tarpaulin over a leaking roof should be thought of only as a very temporary

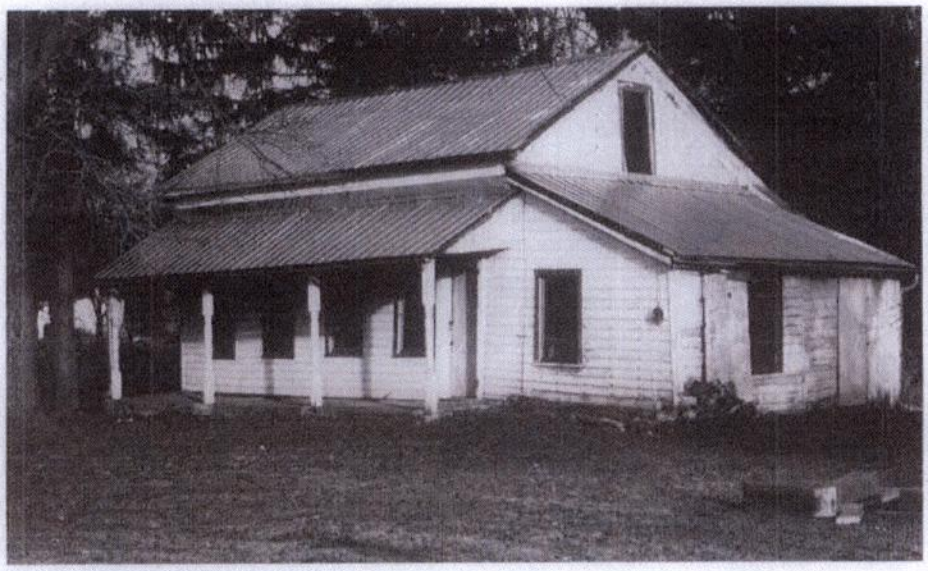


Figure 7. Non-historic materials are appropriate for mothballing projects when they are used to protect historic evidence remaining for future preservation. This lightweight aluminum channel frame and roofing covers the historic wooden shingle roof. Galvanized mesh panels secure the window openings from intrusion by raccoons and other unwanted guests. Photo: Williamsport Preservation Training Center, NPS.

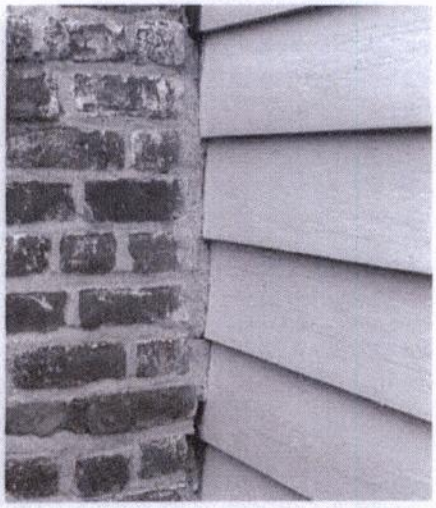


Figure 8. Appropriate mortar mixes should be used when masonry repairs are undertaken. In this case, a soft lime based mortar is used as an infill between the brick and wooden elements. When full repairs are made during the restoration phase, this soft mortar can easily be removed and missing bricks replaced.

emergency repair because it is often blown off by the wind in a subsequent storm.

If the existing historic roof needs moderate repairs to make it last an additional ten years, then these repairs should be undertaken as a first priority. Replacing cracked or missing shingles and tiles, securing loose flashing, and reanchoring gutters and downspouts can often be done by a local roofing contractor. If the roof is in poor condition, but the historic materials and configuration are important, a new temporary roof, such as a lightweight aluminum channel system over the existing, might be considered (see fig. 7). If the roofing is so deteriorated that it must be replaced and a lightweight aluminum system is not affordable, various inexpensive options might be considered. These include covering the existing deteriorated roof with galvanized corrugated metal roofing panels, or 90 lb. rolled roofing, or a rubberized membrane (refer back to cover photo). These alternatives should leave as much of the historic sheathing and roofing in place as evidence for later preservation treatments.

For masonry repairs, appropriate preservation approaches are essential. For example, if repointing deteriorated brick chimneys or walls is necessary to prevent serious moisture penetration while the building is mothballed, the mortar should match the historic mortar in composition, color, and tooling. The use of hard portland cement mortars or vapor-impermeable waterproof coatings are not appropriate solutions as they can cause extensive damage and are not reversible treatments (see fig. 8).

For wood siding that is deteriorated, repairs necessary to keep out moisture should be made; repainting is generally warranted. Cracks around windows and doors can be beneficial in providing ventilation to the interior and so should only be caulked if needed to keep out bugs and moisture. For very deteriorated wall surfaces on wooden frame structures, it may be necessary to sheathe in plywood panels, but care should be taken to minimize installation damage by planning the location of the nailing or screw patterns or by installing panels over a frame of battens (see fig. 9). Generally, however, it is better to repair deteriorated features than to cover them over.

Foundation damage may occur if water does not drain away from the building. Run-off from gutters and downspouts should be directed far away from the foundation wall by using long flexible extender pipes equal in length to twice the depth of the basement or crawl space. If underground drains are susceptible to clogging, it is recommended that the downspouts be disconnected from the drain boot and attached to flexible piping. If gutters and downspouts are in bad condition, replace them with inexpensive aluminum units.

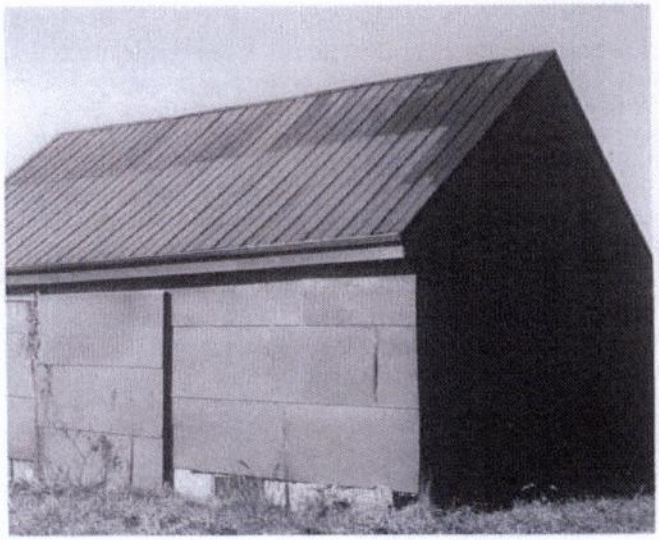


Figure 9. Severely deteriorated wooden siding on a farm building has been covered over with painted plywood panels as a temporary measure to eliminate moisture penetration to the interior. Foundation vents and loose floor boards allow air to circulate inside.

If there are no significant landscape or exposed archeological elements around the foundation, consideration should be given to regrading the site if there is a documented drainage problem (see fig. 10). If building up the grade, use a fiber mesh membrane to separate the new soil from the old and slope the new soil 6 to 8 feet (200 cm-266 cm) away from the foundation making sure not to cover up the dampcourse layer or come into contact with skirting boards. To keep vegetation under control, put down a layer of 6 mil black polyethylene sheeting or fiber mesh matting covered with a 2"-4" (5-10 cm.) of washed gravel. If the building suffers a serious rising damp problem, it may be advisable to eliminate the plastic sheeting to avoid trapping ground moisture against foundations.

Figure 10. Regrading around the Booker Tenement at Colonial Williamsburg has protected the masonary foundation wall from excessive damp. This building has been successfully mothballed for over 10 years. Note the attic and basement vents, the temporary stairs, and the informative sign interpreting the history of this building.

Mothballing

The actual mothballing effort involves controlling the long-term deterioration of the building while it is unoccupied as well as finding methods to protect it from sudden loss by fire or vandalism. This requires securing the building from unwanted entry, providing adequate ventilation to the interior, and shutting down or modifying existing utilities. Once the building is de-activated or secured, the long-term success will depend on periodic maintenance and surveillance monitoring.

Securing the building from vandals, break-ins, and natural disasters. Securing the building from sudden loss is a critical aspect of mothballing. Because historic buildings are irreplaceable, it is vital that vulnerable entry points are sealed. If the building is located where fire and security service is available then it is highly recommeded that some form of monitoring or alarm devices be used.

To protect decorative features, such as mantels, lighting fixtures, copper downspouts, iron roof cresting, or stained glass windows from theft or vandalism, it may be advisable to temporarily remove them to a more secure location if they cannot be adequately protected within the structure.

Mothballed buildings are usually boarded up, particularly on the first floor and basement, to protect fragile glass windows from breaking and to reinforce entry points (see fig. 11). Infill materials for closing door and window openings include plywood, corrugated panels, metal grates, chain fencing, metal grills, and cinder or cement blocks (see fig. 12). The method of installation should not result in the destruction of the opening and all associated sash, doors, and frames should be protected or stored for future reuse.

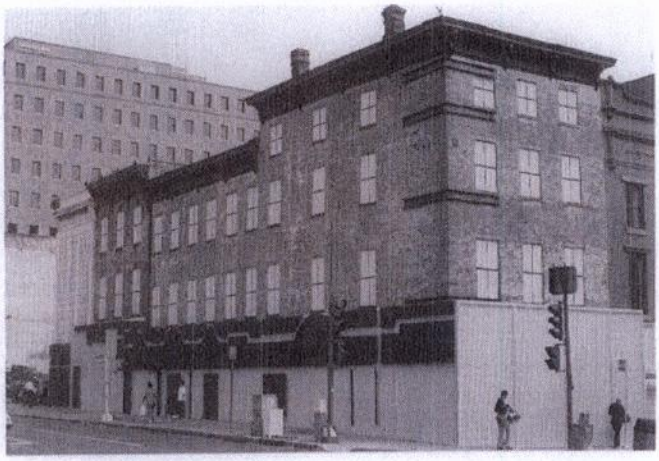


Figure 11. Urban buildings often need additional protection from unwanted entry and graffiti. This commercial building uses painted plywood panels to cover expansive glass storefronts and chain link fencing is applied on top of the panels. The upper windows on the street sides have been covered and painted to resemble 19th century sash. Photo: Thomas Jester, NPS.

Generally exterior doors are reinforced and provided with strong locks, but if weak historic doors would be damaged or disfigured by adding reinforcement or new locks, they may be removed temporarily and replaced with secure modern doors (see fig. 13). Alternatively, security gates in a new metal frame can be installed within existing door openings, much like a storm door, leaving the historic door in place. If plywood panels are installed over door openings, they should be screwed in place, as opposed to nailed, to avoid crowbar damage each time the panel is removed. This also reduces pounding vibrations from hammers and eliminates new nail holes each time the panel is replaced.

For windows, the most common security feature is the closure of the openings; this may be achieved with wooden or pre-formed panels or, as needed, with metal sheets or concrete blocks. Plywood panels, properly installed to protect wooden frames and properly ventilated, are the preferred treatment from a preservation standpoint.

There are a number of ways to set insert plywood panels into windows openings to avoid damage to frame and sash (see fig. 14). One common method is to bring the upper and lower sash of a double hung unit to the mid-point of the opening and then to install pre-cut plywood panels using long carriage bolts anchored into horizontal wooden bracing, or strong backs, on the inside face of the window. Another means is to build new wooden blocking frames set into deeply recessed openings, for example in an industrial mill or warehouse, and then to affix the plywood panel to

the blocking frame. If sash must be removed prior to installing panels, they should be labeled and stored safely within the building.

Plywood panels are usually 1/2"-3/4" (1.25-1.875 cm.) thick and made of exterior grade stock, such as CDX, or marine grade plywood. They should be painted to protect them from delamination and to provide a neater appearance. These panels may be painted to resemble operable windows or treated decoratively (see fig. 15). With extra attention to detail, the plywood panels can be

Figure 12. First floor openings have been filled with cinderblocks and doors, window sash and frames have been removed for safe keeping. Note the security light over the windows and the use of a security metal door with heavy duty locks. Photo: H. Ward Jandl, NPS.

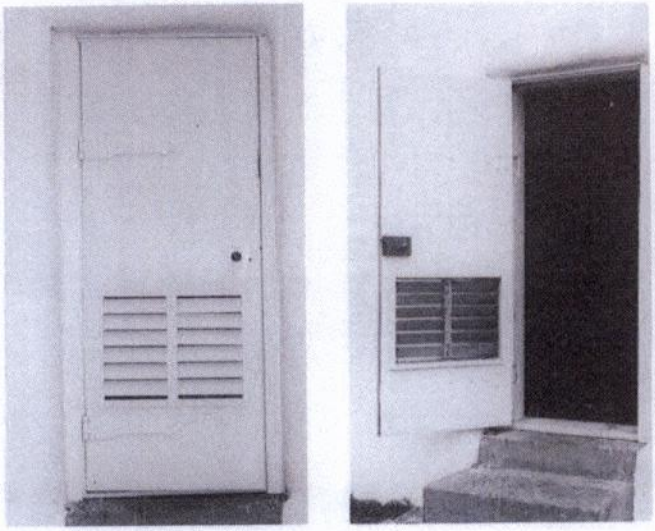


Figure 13. If historic doors would be damaged by adding extra locks, they should be removed and stored and new security doors added. At this lighthouse, the historic door has been replaced with a new door (seen both inside and outside) with an inset vent and new deadbolt locks. The heavy historic hinges have not been damaged. Photo: Williamsport Preservation Training Center, NPS.

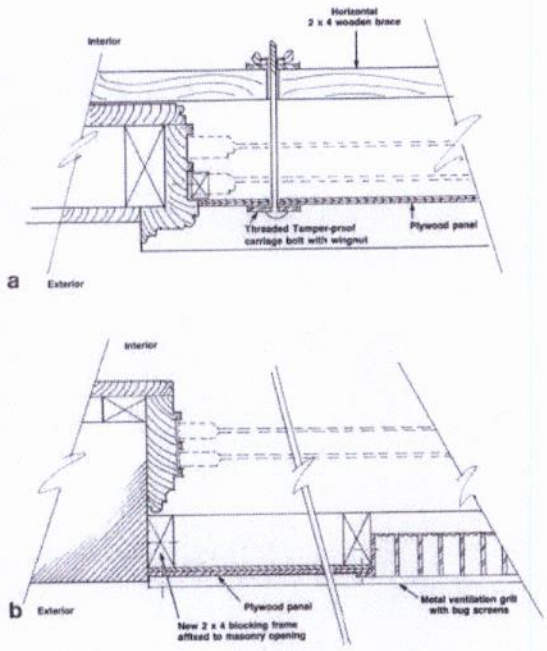


Figure 14. A: Plan detail showing plywood security panel anchored with carriage bolts through to the inside horizontal bracing, or strong backs. B: Plan detail showing section of plywood window panel attached to a new pressure treated wood frame set within the masonry opening. Ventilation should be included whenever possible or necessary.

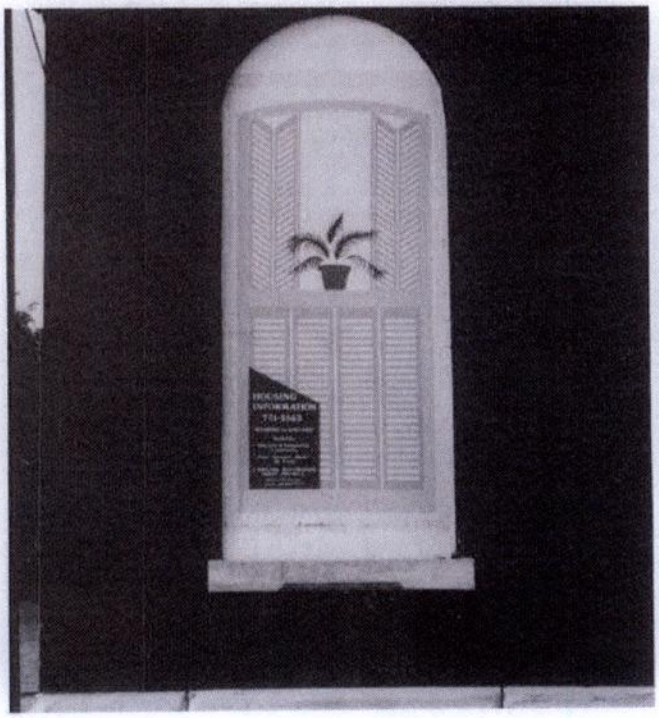


Figure 15. Painting trompe l'oeil scenes on plywood panels is a neighborhood friendly device. In addition, the small sign at the bottom left corner gives information for contacting the organization responsible for the care of the mothballed building. Photo: Lee H. Nelson, FAIA.

trimmed out with muntin strips to give a shadow line simulating multi-lite windows. This level of detail is a good indication that the building is protected and valued by the owner and the community.

If the building has shutters, simply close the shutters and secure them from the interior (see fig. 16). If the building had shutters historically, but they are missing, it may be appropriate to install new shutters, even in a modern material, and secure them in the closed position. Louvered shutters will help with interior ventilation if the sash are propped open behind the shutters.

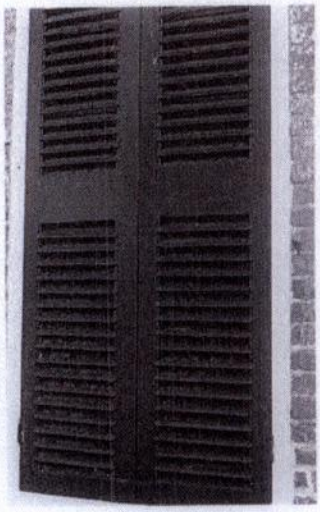


Figure 16. Historic louvered shutters make excellent security closures with passive ventilation.

There is some benefit from keeping windows unboarded if security is not a problem. The building will appear to be occupied, and the natural air leakage around the windows will assist in ventilating the interior. The presence of natural light will also help when periodic inspections are made. Rigid polycarbonate clear storm glazing panels may be placed on the window exterior to protect against glass breakage. Because the sun's ultraviolet rays can cause fading of floor finishes and wall surfaces, filtering pull shades or inexpensive curtains may be options for reducing this type of deterioration for significant interiors. Some acrylic sheeting comes with built-in ultraviolet filters.

Securing the building from catastrophic destruction from fire, lightning, or arson will require additional security devices. Lightning rods properly grounded should be a first consideration if the building is in an area susceptible to lightning storms. A high security fence should also be installed if the property cannot be monitored closely. These interventions do not require a power source for operation. Since many buildings will not maintain electrical power, there are some devices available using battery packs, such as intrusion alarms, security lighting, and smoke detectors which through audible horn alarms can alert nearby neighbors. These battery packs must be replaced every 3 months to 2 years, depending on type and usage. In combination with a cellular phone, they can also provide some level of direct communication with police and fire departments.

If at all possible, new temporary electric service should be provided to the building (see fig. 17). Generally a telephone

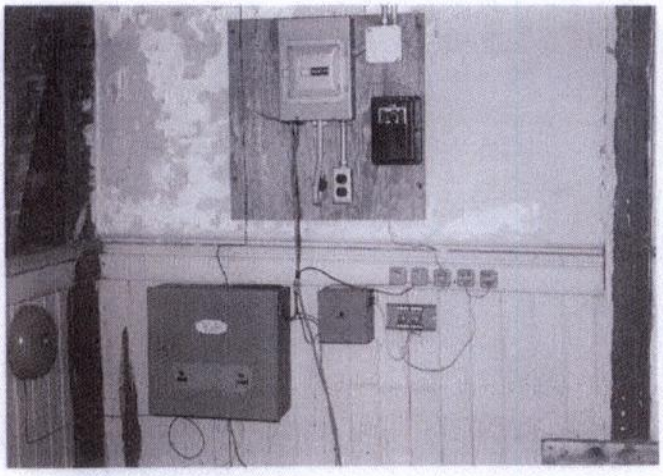


Figure 17. Security systems are very important for mothballed buildings if they are located where fire and security services are available. A temporary electric service with battery back-up has been installed in this building. Intrusion alarms and ionization smoke/fire detectors are wired directly to the nearby security service.

line is needed as well. A hard wired security system for intrusion and a combination rate-of-rise and smoke detector can send an immediate signal for help directly to the fire department and security service. Depending on whether or not heat will be maintained in the building, the security system should be designed accordingly. Some systems cannot work below 32°F (0°C). Exterior lighting set on a timer, photo electric sensor, or a motion/infra-red detection device provides additional security.

Providing adequate ventilation to the interior. Once the exterior has been made weathertight and secure, it is essential to provide adequate air exchange throughout the building. Without adequate air exchange, humidity may rise to unsafe levels, and mold, rot, and insect infestation are likely to thrive (see fig. 18). The needs of each historic resource must be individually evaluated because there are so many variables that affect the performance of each interior space once the building has been secured. A

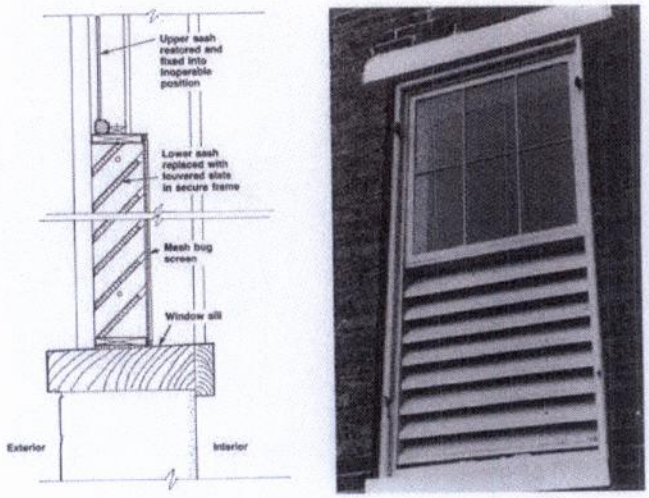


Figure 18. Heavy duty wooden slated louvers were custom fabricated to replace the deteriorated lower sash. The upper sash were rebuilt to retain the historic appearance and to allow light into this vacant historic building. Refer back to Fig. 1 for a view of the building. Photo: Charles E. Fisher, NPS. Drawing by Thomas Vitanza.

mechanical engineer or a specialist in interior climates should be consulted, particularly for buildings with intact and significant interiors. In some circumstances, providing heat during the winter, even at a minimal 45° F (7°C), and utilizing forced-fan ventilation in summer will be recommended and will require retaining electrical service. For masonry buildings it is often helpful to keep the interior temperature above the spring dew point to avoid damaging condensation. In most buildings it is the need for summer ventilation that outweighs the winter requirements.

Many old buildings are inherently leaky due to loose-fitting windows and floorboards and the lack of insulation. The level of air exchange needed for each building, however, will vary according to geographic location, the building's construction, and its general size and configuration.

There are four critical climate zones when looking at the type and amount of interior ventilation needed for a closed up building: hot and dry (southwestern states); cold and damp (Pacific northwest and northeastern states); temperate and humid (Mid-Atlantic states, coastal areas); and hot and humid (southern states and the tropics). (See fig. 19 for a chart outlining guidance on ventilation.)

Once closed up, a building interior will still be affected by the temperature and humidity of the exterior. Without proper ventilation, moisture from condensation may occur and cause damage by wetting plaster, peeling paint, staining woodwork, warping floors, and in some cases even causing freeze thaw damage to plaster. If moist conditions persist in a property, structural damage can result from rot or returning insects attracted to moist conditions. Poorly mothballed masonry buildings, particularly in damp and humid zones have been so damaged on the interior with just one year of unventilated closure that none of the interior finishes were salvageable when the buildings were rehabilitated.

The absolute minimum air exchange for most mothballed buildings consists of one to four air exchanges every hour; one or two air exchanges per hour in winter and often twice that amount in summer. Even this minimal exchange may foster mold and mildew in damp climates, and so monitoring the property during the stabilization period and after the building has been secured will provide useful information on the effectiveness of the ventilation solution.

There is no exact science for how much ventilation should be provided for each building. There are, however, some general rules of thumb. Buildings, such as adobe structures, located in hot and arid climates may need no additional ventilation if they have been well weatherized and no moisture is penetrating the interior. Also frame buildings with natural cracks and fissures for air infiltration may have a natural air exchange rate of 3 or 4 per hour, and so in arid as well as temperate climates may need no additional ventilation once secured. The most difficult

VENTILATION GUIDANCE CHART

CLIMATE	AIR EXCHANGES		VENTILATION				
Temperature and Humidity	Winter air exchange per hour	Summer air exchange per hour	Frame Buildings passive louvering % of openings louvered winter	Frame Buildings passive louvering % of openings louvered summer	Masonry Buildings passive louvering % of openings louvered winter	Masonry Buildings passive louvering % of openings louvered summer	Masonry Buildings fan combination one fan + % louvered summer
hot and dry Southwestern areas	less than 1	less than 1	N/A	N/A	N/A	N/A	N/A
cold and damp Northeastern & Pacific northwestern areas	1	2-3	5%	10%	10%	30%	20%
temperate/humid Mid-Atlantic & coastal areas	2	3-4	10%	20%	20%	40%	30%
hot and humid Southern states & tropical areas	3	4 or more	20%	30%	40% or more	80%	40% or more

Figure 19. This is a general guide for the amount of louvering which might be expected for a medium size residential structure with an average amount of windows, attic, and crawl space ventilation. There is currently research being done on effective air exchanges, but each project should be evaluated individually. It will be noticed from the chart that summer louvering requirements can be reduced with the use of an exhaust fan. Masonry buildings need more ventilation than frame buidings. Chart prepared by Sharon C. Park, AIA and Ernest A. Conrad, PE.

buildings to adequately ventilate without resorting to extensive louvering and/or mechanical exhaust fan systems are masonry buildings in humid climates. Even with basement and attic vent grills, a masonry building many not have more than one air exchange an hour. This is generally unacceptable for summer conditions. For these buildings, almost every window opening will need to be fitted out with some type of passive, louvered ventilation.

Depending on the size, plan configuration, and ceiling heights of a building, it is often necessary to have louvered opening equivalent to 5%-10% of the square footage of each floor. For example, in a humid climate, a typical 20'x30' (6.1m x 9.1m) brick residence with 600 sq. ft.(55.5 sq.m) of floor space and a typical number of windows, may need 30-60 sq. ft.(2.75sq.m-5.5 sq. m) of louvered openings per floor. With each window measuring 3'x5'(.9m x 1.5 m) or 15 sq. ft. (1.3 sq.m), the equivalent of 2 to 4 windows per floor may need full window louvers.

Small pre-formed louvers set into a plywood panel or small slit-type registers at the base of inset panels generally cannot provide enough ventilation in most moist climates to offset condensation, but this approach is certainly better than no louvers at all. Louvers should be located to give cross ventilation, interior doors should be fixed ajar at least 4" (10cm) to allow air to circulate, and hatches to the attic should be left open.

Monitoring devices which can record internal temperature and humidity levels can be invaluable in determining if the internal climate is remaining stable. These units can be powered by portable battery packs or can be wired into electric service with data downloaded into laptop computers periodically (see fig. 20). This can also give long-term information throughout the mothballing years. If it is determined that there are inadequate air exchanges to keep interior moisture levels under control, additional passive ventilation can be increased, or, if there is electric service, mechanical exhaust fans can be installed. One fan in a small to medium sized building can reduce the amount of louvering substantially.

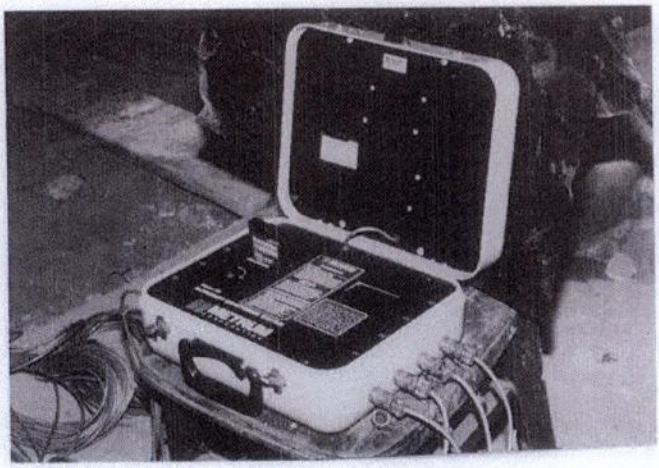


Figure 20. Portable monitors used to record temperature and humidity conditions in historic buildings during mothballing can help identify ventilation needs. This data can be downloaded directly into a lap top computer on site. These monitors are especially helpful over the long term for buildings with significant historic interiors or which are remaining furnished. If interiors are remaining damp or humid, additional ventilation should be added or the source of moisture controlled.

If electric fans are used, study the environmental conditions of each property and determine if the fans should be controlled by thermostats or automatic timers. Humidistats, designed for enclosed climate control systems, generally are difficult to adapt for open mothballing conditions. How the system will draw in or exhaust air is also important. It may be determined that it is best to bring dry air in from the attic or upper levels and force it out through lower basement windows (see fig. 21). If the basement is damp, it may be best to zone it from the rest of the building and exhaust its air separately. Additionally, less humid day air is preferred over damper night air, and this can be controlled with a timer switch mounted to the fan.

The type of ventilation should not undermine the security of the building. The most secure installations use custom-made grills well anchored to the window frame, often set in plywood security panels. Some vents are formed using heavy millwork louvers set into existing window openings (refer back to fig.18). For buildings where security is not a primary issue, where the interior is modest, and where there has been no heat for a long time, it may be possible to use lightweight galvanized metal grills in the window openings (refer back to fig.7). A cost effective grill can be made from the expanded metal mesh lath used by plasterers and installed so that the mesh fins shed rainwater to the exterior.

Securing mechanical systems and utilities. At the outset, it is important to determine which utilities and services, such as electrical or telephone lines, are kept and which are cut off. As long as these services will not constitute a fire

Figure 21. This electric thermostat/humidistat mounted in the attic vent controls a modified ducted air/fan system. The unit uses temporary exposed sheet metal ducts to pull air through the building and exhaust it out of the basement. For over ten years this fan system in combination with 18" x 18" preformed louvers in selective windows has kept the interior dry and with good air exchanges.

hazard, it is advisable to retain those which will help protect the property. Since the electrical needs will be limited in a vacant building, it is best to install a new temporary electric line and panel (100 amp) so that all the wiring is new and exposed. This will be much safer for the building, and allows easy access for reading the meter (see fig. 22).

Most heating systems are shut down in long term mothballing. For furnaces fueled by oil, there are two choices for dealing with the tank. Either it must be filled to the top with oil to eliminate condensation or it should be drained. If it remains empty for more than a year, it will likely rust and not be reusable. Most tanks are drained if a newer type of system is envisioned when the building is put back into service. Gas systems with open flames should be turned off unless there is regular maintenance and frequent surveillance of the property. Gas lines are shut off by the utility company.

If a hot water radiator system is retained for low levels of heat, it generally must be modified to be a self-contained system and the water supply is capped at the meter. This recirculating system protects the property from extensive damage from burst pipes. Water is replaced with a water/glycol mix and the reserve tank must also be filled with this mixture. This keeps the modified system from freezing, if there is a power failure. If water service is cut off, pipes should be drained. Sewerage systems will require special care as sewer gas is explosive. Either the traps must be filled with glycol or the sewer line should be capped off at the building line.

Figure 22. All systems except temporary electric have been shut off at this residence which has been mothballed over 20 years. An electric meter and 100 amp panel box have been set on a plywood panel at the front of the building. It is used for interior lighting and various alarm systems. The building, however, is showing signs of moisture problems with efflourescent stains on the masonry indicating the need for gutter maintenance and additional ventilation for the interior. The vegetation on the walls, although picturesque, traps moisture and is damaging to the masonry. Photo: H. Ward Jandl, NPS.

Developing a maintenance and monitoring plan. While every effort may have been made to stabilize the property and to slow the deterioration of materials, natural disasters, storms, undetected leaks, and unwanted intrusion can still occur. A regular schedule for surveillance, maintenance, and monitoring should be established: (See fig. 23 for maintenance chart).

MAINTENANCE CHART

periodic

- ❑ regular drive by surveillance
- ❑ check attic during storms if possible

monthly walk arounds

- ❑ check entrances
- ❑ check window panes for breakage
- ❑ mowing as required
- ❑ check for graffiti or vandalism

enter every 3 months to air out

- ❑ check for musty air
- ❑ check for moisture damage
- ❑ check battery packs and monitoring equipment
- ❑ check light bulbs
- ❑ check for evidence of pest intrusion

every 6 months; spring and fall

- ❑ site clean-up; pruning and trimming
- ❑ gutter and downspout check
- ❑ check crawlspace for pests
- ❑ clean out storm drains

every 12 months

- ❑ maintenance contract inspections for equipment/utilities
- ❑ check roof for loose or missing shingles
- ❑ termite and pest inspection/treatment
- ❑ exterior materials spot repair and touch up painting
- ❑ remove bird droppings or other stains from exterior
- ❑ check and update building file

Figure 23. Maintenance Chart. Many of the tasks on the maintenance chart can be done by volunteer help or service contracts. Regular visits to the site will help detect intrusion, storm damage, or poor water drainage.

The fire and police departments should be notified that the property will be vacant. A walk-through visit to familiarize these officials with the building's location, construction materials, and overall plan may be invaluable if they are called on in the future.

The optimum schedule for surveillance visits to the property will depend on the location of the property and the number of people who can assist with these activities. The more frequent the visits to check the property, the sooner that water leaks or break-ins will be noticed. Also, the more frequently the building is entered, the better the air exchange. By keeping the site clear and the building in good repair, the community will know that the building has not been abandoned (see fig. 24). The involvement of neighbors and community groups in caring for the property can ensure its protection from a variety of catastrophic circumstances.

The owner may utilize volunteers and service companies to undertake the work outlined in the maintenance chart.

Service companies on a maintenance contract can provide yard, maintenance, and inspection services, and their reports or itemized bills reflecting work undertaken should be added to update the building file.

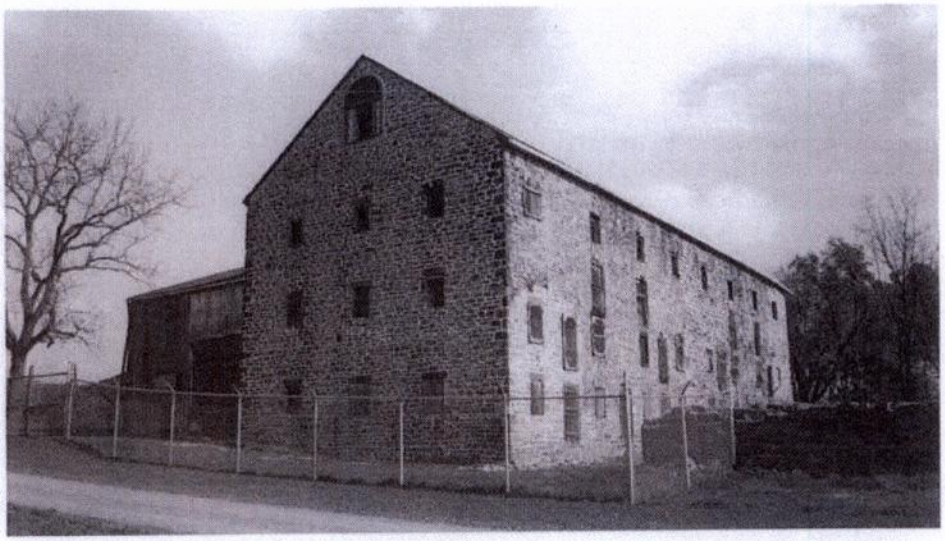


Figure 24. Once mothballed, a property must still be monitored and maintained. The openings in this historic barn has been modified with a combination of wood louvers and metal mesh panels which require little maintenance. The grounds are regularly mowed, even inside the chain link security fence. Photo: Williamsport Preservation Training Center, NPS.

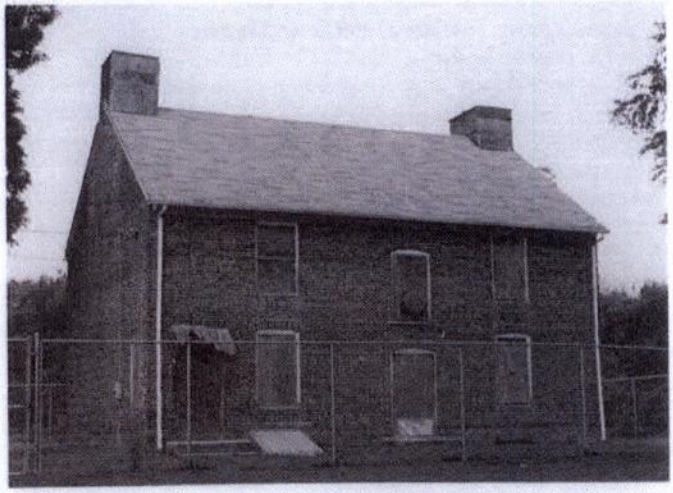
Components of a Mothballing Project

Document: Brearley House, New Jersey; 2½ story center hall plan house contains a high degree of integrity of circa 1761 materials and significant early 19th century additions. Deterioration was attributable to leaking roof, unstable masonry at gables and chimneys, deteriorating attic windows, poor site drainage, and partially detached gutters. Mothballing efforts are required for approximately 7-10 years.

Stabilize: Remove bat droppings from attic using great caution. Secure historic chimneys and gable ends with plywood panels. Do not take historic chimneys down. Reroof with asphalt shingles and reattach or add new gutters and downspouts. Add extenders to downspouts. Add bug screens to any ventilation areas. Add soil around foundation and slope to gain positive drain; do not excavate as this will disturb archeological evidence.

Mothball: Install security fence around the property. Secure doors and windows with plywood panels (½" exterior grade). Install preformed metal grills in basement and attic openings. Add surface mounted wiring for ionization smoke and fire detection with direct wire to police and fire departments. Shut off heat and drain pipes. Add window exhaust fan set on a thermostatic control. Provide for periodic monitoring and maintenance of the property.

Figure 25. Above is a summary of the tasks that were necessary in order to protect this significant property while restoration funds are raised. Photographs: Michael Mills; Ford Farewell Mills Gatsch Architects.



a. A view showing the exterior of the house in its mothballed condition.

b. Plywood panels stabilize the chimneys. Note the gable vents.

c. The exhaust fan has tamper-proof housing.

MOTHBALLING CHECKLIST

Mothballing Checklist In reviewing mothballing plans, the following checklist may help to ensure that work items are not inadvertently omitted.	Yes	No	Date of action or comment.
Moisture • Is the roof watertight? • Do the gutters retain their proper pitch and are they clean? • Are downspout joints intact? • Are drains unobstructed? • Are windows and doors and their frames in good condition? • Are masonry walls in good condition to seal out moisture? • Is wood siding in good condition? • Is site properly graded for water run-off? • Is vegetation cleared from around the building foundation to avoid trapping moisture?			
Pests • Have nests/pests been removed from the building's interior and eaves? • Are adequate screens in place to guard against pests? • Has the building been inspected and treated for termites, carpenter ants, and rodents? • If toxic droppings from bats and pigeons are present, has a special company been brought in for its disposal?			
Housekeeping • Have the following been removed from the interior: trash, hazardous materials such as inflammable liquids, poisons, and paints and canned goods that could freeze and burst? • Is the interior broom-clean? • Have furnishings been removed to a safe location? • If furnishings are remaining in the building, are they properly protected from dust, pests, ultraviolet light, and other potentially harmful problems? • Have significant architectural elements that have become detached from the building been labeled and stored in a safe place? • Is there a building file?			
Security • Have fire and police departments been notified that the building will be mothballed? • Are smoke and fire detectors in working order? • Are the exterior doors and windows securely fastened? • Are plans in place to monitor the building on a regular basis? • Are the keys to the building in a secure but accessible location? • Are the grounds being kept from becoming overgrown?			
Utilities • Have utility companies disconnected/shut off or fully inspected water, gas, and electric lines? • If the building will not remain heated, have water pipes been drained and glycol added? • If the electricity is to be left on, is the wiring in safe condition?			
Ventilation • Have steps been taken to ensure proper ventilation of the building? • Have interior doors been left open for ventilation purposes? • Has the secured building been checked within the last 3 months for interior dampness or excessive humidity?			

Figure 26.. MOTHBALL CHECKLIST. This checklist will give the building owner or manager a handy reference guide to items that should be addressed when mothballing a historic building. Prepared by H. Ward Jandl, NPS.

Conclusion

Providing temporary protection and stabilization for vacant historic buildings can arrest deterioration and buy the owner valuable time to raise money for preservation or to find a compatible use for the property. A well planned mothballing project involves documenting the history and condition of the building, stabilizing the structure to slow down its deterioration, and finally mothballing the structure to secure it (See fig. 25). The three highest priorities for the building while it is mothballed are 1) to protect the building from sudden loss, 2) to weatherize and maintain the property to stop moisture penetration, and 3) to control the humidity levels inside once the building has been secured. See Mothballing Checklist Figure 26.

While issues regarding mothballing may seem simple, the variables and intricacies of possible solutions make the decision-making process very important. Each building must be individually evaluated prior to mothballing. In addition, a variety of professional services as well as volunteer assistance are needed for careful planning and repair, sensitively designed protection measures, follow-up security surveillance, and cyclical maintenance (see fig. 27).

In planning for the future of the building, complete and systematic records must be kept and generous funds allocated for mothballing. This will ensure that the historic property will be in stable condition for its eventual preservation, rehabilitation, or restoration.

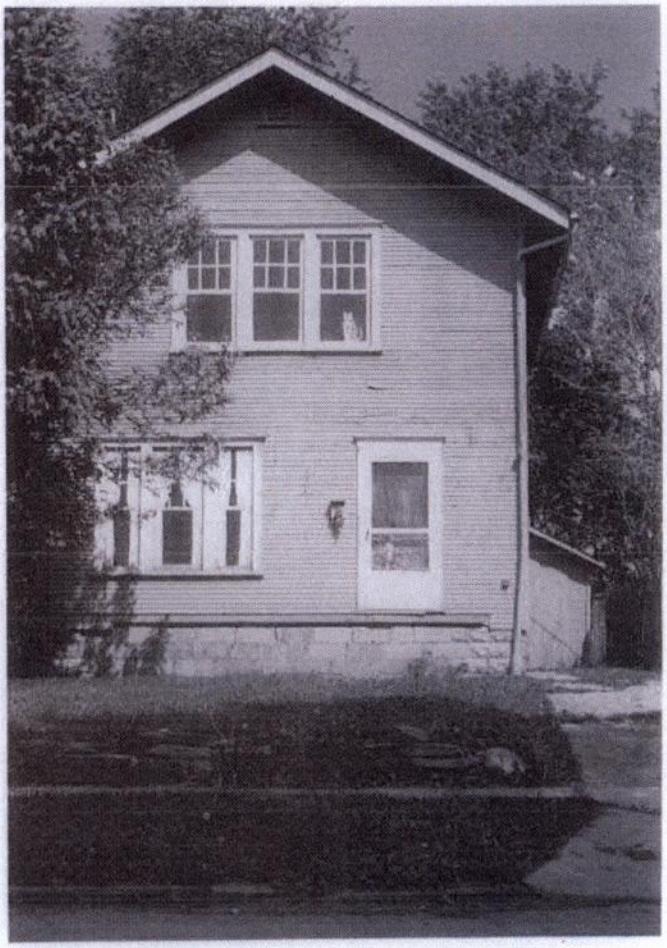


Figure 27. This residential building blends into its neighborhood even though all the windows have been covered over and the front steps are missing. The grounds are maintained and the special attention to decoratively painting the window panels shows that the property is being well cared for until it can be rehabilitated. Photo: Ohio Historical Society.

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All photographs and drawings are by the author unless otherwise noted.

Cover photograph: Mothballing of this historic house involved a new membrane roof covering over the historic roof and slatted window covers for security and ventilation. Photo: Williamsport Preservation Training Center, NPS.

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Further Reading

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